<110> Bledig, Stefan A.
Byrum, Joseph R.
Liu, Jingdong
Hinkle, Gregory J.

<120> Nucleic Acid molecules And Other Molecules Associated With The Methionine Synthesis And Degradation Pathways

<130> 38-21(15077)B

<160> 3204

<210> 1
<211> 235
<212> nucleic acid
<213> Zea mays

<400> 1

gttttccgtc tagcctcggt ggacagatcg acgctgccca tgctgataaa tggacggtcc 60

tgatccattg ttcgttgtgt tattaatgtt gtataattga gcaggacaca acacgtacgt 120

nnnnnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnnca ggttcatcaa gaccgccgca 180

tacggccact ttggccgtga cgacgccgac ttcacctgcg aggtggtcaa gcccc 235

<210> 2
<211> 313
<212> nucleic acid
<213> Zea mays

<400> 2

cacatccgtt tgnctcttct cnntcttgcc ggtcccgaat aaaaancagc ancgcaagan 60

gtcggtagan cnagaagaan gcantngcgg ccganangtt ccttttcacn tcggagtccg 120

tgnannaggc gcancccgac aagctgtgcg accaggtgtc ggacgccgtg nttgacgcnt 180

gcctcncnca gnaccccgac ancaangtng cctgncacan gtgcaccaag accaacntgg 240

tgatggtgtt cggcgagntn acgaccaagg cgaccgttga ctannagaag atcgtnggnn 300

acacntgccg cga 313

<210> 3
<211> 77
<212> nucleic acid
<213> Zea mays

<400> 3

ctgcgagacc ttcacnaaga ccaacatggt gatgttgntc ggcgnnatca cgaccnangc 60

tacngtggnc tacnaga 77

<210> 4
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 4

tcatcattga cacctacngt ggctggggag cccatggtgg tggcgctttc tccggcaagn 60

nnncnannan ngnnnantgc agnngncgnt atntannaag gcacnatncn ttgatgtctg 120

cgatgacacg gactattctt ggagagcaaa gggcttccat gagcaagcaa aagctgccgg 180

tgttccggct attactactg ctggcatcta tccaggagtt agcaatgtga tggctgctga 240

cttgtacatg tgccagaagt gaaaatgnga acctgaaga 279

<210> 5
<211> 211
<212> nucleic acid
<213> Zea mays

<400> 5

ggaccgcagc ggcgcntang tggccaggca ggccgccaag agnatcntgg ncagnggatc 60

gcncgcngct gcctcgtgca ggtgtacgta cnccatnggn tggccggann ccctgnccgt 120

gttcgtnaac tcgtacgagc accggcacgn tnaangncaa ggagatcntc aanatcntna 180

naggagaact tcgacttcag gcccgggatg a 211

<210> 6
<211> 266
<212> nucleic acid
<213> Zea mays

<400> 6

gtctgttttt tttccccatt aattgtcaat ctacaattca aatcacattc acaatgggta 60

gcgtcagcca caagacagga actttcctgt tcacctccga gtccgtaggt gaaggtcacc 120

ctgacaagat cgctgatcag gtctctgacg ccgttctcga tgcctgcttg gccgaggacc 180

ctctctccaa agtcgcttgc gagactgcta ccaagaccgg tatgatcatg gtcttcggtg 240

aaatcaccac caaagccaag ctcgat 266

<210> 7
<211> 168
<212> nucleic acid
<213> Zea mays

<400> 7

gggggcgttt ccnccagttc tgtgggngct accgtgtagn ntcgtcggcc gatncacgcn 60

tctaangntg agtcggtcna caacgacgan atcgccgnng acctcangga gcacgtcnnc 120

anncncgtga tgnctgataa gtacctcgac gagaagacca tcttncac 168

<210> 8
<211> 570
<212> nucleic acid
<213> Zea mays

<400> 8

ggnnnnnnnn aacttctagn tgnncggtgc cgtcanaaat tcaagggtcn acccacgcgc 60

cgaacacgcn tccgcccacg cgtccgccca cgcgtccgga ctagttctag atggcggtgc 120

gctttctccg gcaaggaccc aaccaaggtt gaccgcagcg gagcctatgt cgcgaggagg 180

ctgccaagag catcgtcgcc agcggccttg ctcgccgcgc catcgtccag gtgtccacgc 240

catcggcgtg cccgagcctc tctccgttgt tttgtcgaca acttacggca accggcgcca 300

ttccccgaca agggagattc ctcaaagatt gtcaaaggga gaaatttcga atttaagggc 360

cttggcaatg attaatcaat caaacctttg aacctccaaa gaaaaanggc gggaaacngg 420

cggctaacct cnaanaacgg gcaagcctaa tggggcaact tcggaaaggg gaaaccctgg 480

actttcacct gggaaaggtg ggtgaaaacc cactcaaant cgggggggaaa actttcggcc 540

tnaaaggggg gccttttttt tnaataaana 570

<210> 9
<211> 473
<212> nucleic acid
<213> Zea mays

<400> 9

tcttnagtgt ncncngncgc ctgccntcgt tttgggcccc ggccccctat aatgagtcaa 60

ntanngcgtc cgaatttttt tcncgtngaa nanttgntcn ngggcggcgc catggtgccg 120

tccgcgtgca naccgtgctc atctccaccc agcacancga nnccgtggga acgncgantc 180

nccgcngnnn tcnaggggna cgtcatcaag cccgtgatcc ctgngacgtn cctcgngaga 240

agaccntctt ccacctcnnc ccgtccgggc gcttcntcan cggcnggccc cncgggacgc 300

cggcctcacc ngccgcnnga tcatcntcgg gcncatncgg cngctgggga gccccttttt 360

tggcgccttc tccnggnnng gnccctagca ncggtngacc gcancggcgc ctantgnccc 420

tnncaggccn ccancannca tcttggccag cggcctcngc ccggncgncn cct 473

<210> 10
<211> 428
<212> nucleic acid
<213> Zea mays

<400> 10

acctaaaggn ttacgttatc aagccngtca tcccaganag gggcgggga ctagaagacg 60

ntgntncacc tcaacccgtc ngggcgcttn ntcatcngcg ggccccacgg tgactcctnn 120

ctcaccggcc ancaagatca tcatngacac ctacggcnnc tggggagccc acnncgnggg 180

cgccttcttc ggnaaggacc ccaccaaggt gnaccnnaan ggggcctacn tcgccnnnca 240

tgncgtcaag agcattgtgg ccagncgcct nttncnacgc ttgctcgtgc aggtgtacta 300

cgncatcggc gtgcctgaan cnctttcant nttcgttgaa ttctanagna accgggacca 360

ttcccgacaa gganaatctt aaagatngtt aangatnaac tttncttcaa ggnccnggnt 420

gatcacca 428

<210> 11
<211> 87
<212> nucleic acid
<213> Zea mays

<400> 11

tggtctngnc tgtctgcnct ctatcatgcn ttnttatggc tcctacnagt tgtnattctt 60

gatntgnccc tngcttatca ttttact 87

<210> 12

<211> 444
<212> nucleic acid
<213> Zea mays

<400> 12

tnatgttgtt cggcgagatc accaccaang cgagngtnta ctacgagaag atngtgcgcg 60

acacctgccg cgagatctgg ttcacctccn acnacntggg ggctcgaccc caccnctcaa 120

ggtgcttgtt aacatttaca ncaatccccc acattcccaa ggcnttcacn ggcactttaa 180

caaaacgncc naaggaaaat cggccccgcn aacaaagcca aatttttcgg ttccccaccc 240

ancanacncc caacttattc cccttaacca cctgcttgca ccaaactttt tnncncccct 300

tantcgaagt tcnnaaagga cngnaccttt cctttgttaa accccaaagn aaaaaccaaa 360

tttaccgttn nantntntta aaaaaaggcc gcnccctntt nnccctttcc cnttcacaac 420

cctnttttat tttttannca aaaa 444

<210> 13
<211> 513
<212> nucleic acid
<213> Zea mays

<400> 13

gnngnnnngn ggtaattcna cgccggangg taccggtcag cnaattcccg ggtcnaccca 60

cgcgtccgaa gggtgtgcat ggccacttca ccaagcgccc cgaggagatt ggagctggtg 120

accagggaca catgttcggg tatgcgaccg atgagacccc tgagttgatg cccctcagcc 180

atgtccttgc caccaagcta ggtgctcgtc tcaccgaggt ccgcaagaac ggaacctgcc 240

cctggctcag gcctgatggg aagacccagg tgacagtcga gtaccgcaat gagggtggtg 300

ccatggtccc catccgtgtc cacaccgtcc tcatctccac ccagcacgac gagacagtga 360

ccaatgatga gatcgctgct gacctgaagg agcatgtcat caagcctgtc atccctgagc 420

agtaccttga cgagaagacc atcttccacc ttaacccatc tggccgcttt gtcattggtg 480

gacctcaang cgaatctggg ctcaatgggc nca 513

<210> 14
<211> 520
<212> nucleic acid
<213> Zea mays

<400> 14

gnnnggnggt nntnntgnag ggggntgnan ggaaanttgt accggtncgg aattcccggg 60

tcgacccacg cgtccgtgat ccctgagaag tacctcgacg agaagaccat cttccacctc 120

aacccgtccg ggcgcttcgt catcggcggg ccccacggtg acgccggcct caccggccgc 180

aagatcatca tcgacacgta cggcggctgg ggagcccacg gcggtggcgc cttctccggc 240

aaggacccca ccaaggtgga ccgcagcggc gcctacgtgg ccaggcaggc cgccaagagc 300

atcgtggcca gcggcctcgc ccgccgctgc ctcgtgcagg tgtcgtacgc catcggcgtg 360

ccggagcccc tgtccgtgtt cgtcaactcg tacggcaccg gcacgatccc cgacaaggag 420

atcctcaaga tcgtgaagga gaacttcgac ttcagcccgg gatgatcaag catcaacctn 480

gacctgaaag aaaggcngna acanggtcat taaaaaccgc 520

<210> 15
<211> 511
<212> nucleic acid
<213> Zea mays

<400> 15

gtggggnttn gnggnatttn taggccgnnc gtaccggacc ngaaattccc gggtccaccc 60

acgcgtccgc aagacccctg agctgatgcc cctcagccat gtccttgcca ccaagcttgg 120

tgctcgtctc acggaggttc gcaagaatgg aacctgcccc tggctcaggc ccgatgggaa 180

gacccaggtg acagtggagt accgcaacga gggtggcgcc atggttccca tccgtgtgca 240

cacagtcctc atctctaccc agcacgacga gacagtcacc aacgacgaga ttgctgctga 300

cctgaaggag cacgtcatca agccagtcat ccccgagcag tacctcgacg agaagacaat 360

cttccacctc aacccgtctg gccgcttcgt catcggcgga cctcacggcg acgctggcct 420

cactggccgg aagatcatca tcgacaccta cggtggctgg ggaacccacg gcgggggcgc 480

cttctccggc aaggacccga caaggtggac c 511

<210> 16
<211> 483
<212> nucleic acid
<213> Zea mays

<400> 16

ttnaaacttt cacgccgcca ggtancggtc anagaattcc cggggncgac ccacgcgtcg 60

gccatggtcc ccatccgtgt ccacaccgtc ctcatctcca cccagcacga cgagacagga 120

ccaatgatga gatcgctgct gacctgaagg agcatgtcat caagcctgtc atccctggca 180

gtaccttgac gagaagacca tcttccacct taacccatct ggccgctttg tcattgtgga 240

cctcacggcg atgctggcct cactggccgc aagatcatca ttgacaccta cggtgctggg 300

gagcccatgg tggtggcgct ttctccggca aggacccaac caaggttgac cgcacggagc 360

ctatgtcgca aggcaggctg ccaagagcat cgtcgccagc ggccttgctc gcccgccatc 420

gtccaggtgt cttacgccat cggcgtgccc gaacctctct ccgtgttcgt cgcacgtacg 480

gna 483

<210> 17
<211> 454
<212> nucleic acid
<213> Zea mays

<400> 17

ctcaccgagg tgcgcannaa cggcacctgc gcctggctga ggcccgacgg nnagacccag 60

gtgacggtgg agtacgtgaa cgagggcggc gccatggtgc ccgtccgcgt gcacaccgtg 120

ctcatctnca cccagcacga cgagaccgtc accaacgacg agatcgccgc cgacctcaag 180

gagcacgtca tcaagcccgt gatccctgag aagtacctng acgagaagac catcttccac 240

ctnaacccgt ccgggcgctt cgtcatcggc gggccccacg gtgacgccgg cctaccggcg 300

caagatcatc atcgacacgt acggcggctg gggagcccac ggcggtggcg ccttcttcng 360

caaggacccc accaangtgg accgcaacgg ngcctacgtg ggcaggcang ccgncaaaag 420

catngtggcc aagcgggctt gcccgncgtt gctt 454

<210> 18
<211> 474
<212> nucleic acid
<213> Zea mays

<400> 18

ccacgcgtcc gcccacgcgt ccggaccaag gcgaccgtgg actacgagaa gatcgtgcgc 60

gacacctgcc gggngatcgg gttcacctgn gncgacgtgg gcctcgacgc cnaccgctgc 120

aaggtgctgg tgaacatcga gcagcagtcc cccgacatcg cgcanggcgt gcacgggcac 180

ttcacgaagc ggcccgagga gatcggcgcg ggcnaccagg gccacatgtt cgggtacgcc 240

accgacnaga cccccgagct gatgccgctc agccacgtgc tggccaccaa gctgggcgcg 300

cgcctcaccg aggtgcncan gaacggcacc tgcncctggc tgaggcccga cggcaagacc 360

caggtgacng tggagtacgt gaacnagggc ngctccatgg tgcccgtccg ngtgcacacc 420

ttgctnatct tcacccagna ctacnagacc gtancaacta ctagatcgnc ttnt 474

<210> 19
<211> 435
<212> nucleic acid
<213> Zea mays

<400> 19

cgagggacac cctgacaagc tctgtgacca ggtctgagat gccgttcttg acgcttgcct 60

tgctgaggac cctgacagca aggttgcttg tgagacctgc accaagacca acatggtcat 120

ggtctttggt gagatcacca ccaaggccaa tgttgactac gagaagattg tcagggagac 180

ctgccgcaac attggttttg tgtcaaacga tgttgggctt gacgccgacc actgcaaggt 240

gctcgtgaac attgagcagc agtcccctga tattgctcan ggtgtgcatg gncacttacc 300

aagcgccccg aggagattgg agctggtgac cagggacaca tgttcgggta tgcgaccgat 360

gagacccctg agttgatgcc cctcaccatg tccttggcac caagctangt gctcgtctta 420

ccgangtccg caaag 435

<210> 20
<211> 422
<212> nucleic acid
<213> Zea mays

<400> 20

accgaggtgc gcaagaacgg cacctgcgcc tggctgaggc ccgacggcaa gacccaggtg 60

acggtggagt acgtgaacga gggcggcgcc atggtgcccg tccgcgtgca caccgtgctc 120

atctccaccc agcacgacga gaccgtcacc aacgacgaga tcgccgccga cctcaaggag 180

cacgtcatca agcccgtgat ccctgagaag tacctcgacg agaagaccat cttccacctc 240

aacccgtccg ggcgcttcgt catcggcggg ccccacggtg acgccggcct caccggccgc 300

aagatcatca tcgacacgta cggcggctgg ggaacccaag gcggtggcgc cttctccggc 360

aaggacccaa caangtggaa cgcaangggg gccaanttgg caaggaagcc gcaagaanat 420

ct 422

<210> 21
<211> 488
<212> nucleic acid
<213> Zea mays

<400> 21

ggnnnnngna actttacgcc ggcnngtacg nctcanaaat tccaaggncg acccacccgc 60

cncgaataaa gagcagcagc gcaagaggtc ggtagagcga gaagaaggca atggcggcga 120

gagcttcctt ttcacctcgg agtccgtgaa cgaggggcac cccgacaagc tgtgcgacag 180

gtgtcggacg ccgtgcttga cgcatgcctc gcgcaggacc ccgacagcaa ggtggctgcg 240

agacctgcac caagaccaac atggtgatgg tgttcggcga gatcacgacc aaggcaccgt 300

ggactacgag aagatcgtgc gcgacacctg ccgcgagatc gggttcacct ccgagacgtg 360

ggcctcgacg ccgaccgctg caaggtgctg gtgaacatcg agcagcaatc cccgacatcg 420

cgcaaggcgt gcacgggcac ttcacgaaac ggnccgagga gatnggcgcn gggacaaggg 480

ccacatgt 488

<210> 22
<211> 491
<212> nucleic acid
<213> Zea mays

<400> 22

gggnnnnngn aantttttctt gcccgccagg taccaatcaa gaattcncgg gtcgacccac 60

gcntccngat cgctgctgac ctgaaggagc atgtcatcaa gcctgtcatc cctgagcagt 120

accttgacga gaagaccatc ttccacctta acccatctgg ccgctttgtc attggtggac 180

ctcacggcga tgctggcctc actggccgca agatcatcat tgacacctac ggtggctggg 240

gagcccatgg tggtggcgct ttctccggca aggacccaac caaggttgac cgcagcggag 300

cctatgtcgc aaggcaggct gccaagagca tcgtcgccag cggccttgct cgccgcgcca 360

tcgtccaggt gtcttacgcc atcggcgtgc ccgagcctct ctccgtgttc gtcgacacgt 420

acggcaacgg cgccattccc gacaaggaga ttctcaagaa tgtcaaggan aacttcaatt 480

caaggctggg a 491

<210> 23
<211> 439
<212> nucleic acid
<213> Zea mays

<400> 23

attggtggac ctcacggcga tgctggcctc actggccgca agatcatcat tgncacntac 60

ggtggctggg gagcccatgg tggtggcgct ttctccggca aggacccaac caaggttgac 120

cgcagcggag cctatgtcgc aaggcaggct gccaagagca tcgtcgccag cggccttgct 180

cgccgcgcca tcgtccaggt gtcttacgcc atcggcgtgc ccgagcctct ctccgtgttc 240

gtcgacacgt acggcaccgg cgcgatcccc gacaaggaga tcctcaagat tgtcaaggag 300

aacttcgatt tcaggcctgg catgatcatc atcaaccttg acctcaagaa aggcggcaac 360

gggcgctacc tnaagacggn ggnctacggc actttggaag ggacgacctn acttncctng 420

gangggggg aanccctta 439

<210> 24
<211> 502
<212> nucleic acid
<213> Zea mays

<400> 24

gggnnngnng naactgtcta ccttgcccgt gccggtccaa aattaacggg tccacccacg 60

cgtccggncc aatgtcgact acgagaagat tgtcagggag acatgccgca acattggttt 120

cgtgtcgaac gatgtcgggc ttgacgctga ccactgcaag gtgcttgtga acattgagca 180

gcagtcccct gatattgctc agggtgtgca cggccacttc accaagcgcc ccgaggagat 240

tggagctggt gaccaggggc acatgtttgg gtatgcgact gacgagaccc ctgagctgat 300

gcccctcagc catgtccttg ccaccaagct tggtgctcgt ctcacggagg ttcgcaagaa 360

tggaacctgc ccctggctca ggcccgatgg gaagacccag gtgacagtgg agtaccgcaa 420

cgagggtggc gccatggttc ccatccgtgt gcacacagtc ctcatctcta cccaacacga 480

cgaagacagt caacaaacga cg 502

<210> 25
<211> 476
<212> nucleic acid
<213> Zea mays

<400> 25

ggnnnntnnt nagnnggggg attaatggna tgctntaccg gtccggaatt cccgggtcga 60

cccacgcgtc cgccgaggtc cgcaagaacg gaacctgccc ctggctcagg cctgatggga 120

agacccaggt gacagtcgag taccgcaatg agggtggtgc catggtcccc atccgtgtcc 180

acaccgtcct catctccacc cagcacgacg agacagtgac caatgatgag atcgctgctg 240

acctgaagga gcatgtcatc aagcctgtca tccctgagca gtaccttgac gagaagacca 300

tcttccacct taacccatct ggccgctttg tcattggtgg acctcacggc gatgctggcc 360

tcactggccg caagatcatc attgacacct acggtggctg gggagcccat ggtggtggcg 420

ctttctccgg caaggaccca accaaggttg accgcagcgg acctatgtcg caaggc 476

<210> 26
<211> 393
<212> nucleic acid
<213> Zea mays

<400> 26

cctgcaccaa gaccaacatg gtcatggtct ttggtgagat caccaccaag gccaatgttg 60

actacgagaa gattgtcagg gagacctgcc gcaacattgg ttttgtgtca aacgatgttg 120

ggcttgacgc cgaccactgc aaggtgctcg tgaacattga gcagcagtcc cctgatattg 180

ctcagggtgt gcatggccac ttcaccaagc gccccgagga gattggagct ggtgaccagg 240

gacacatgtt cgggtatgcg accgatgaga cccctgagtt gatgcccctc agccatgtcc 300

ttgccaccaa gctaggtgct cgtctcaccg aggtccgcaa gaacggaacc tgcccctggc 360

tcaagcctga tgggaaaaac caaggtgaca gtc 393

<210> 27
<211> 435
<212> nucleic acid
<213> Zea mays

<400> 27

cgagacagtg accaatgatg agatcgctgc tgacctgaag gagcatgtca tcangcctgn 60

catccctgag cagtaccttg acgagaagac catcttccac cttaacccat ctggccgctt 120

tgtcattggt ggacctcacg gcgatgctgg cctcactggc cgcaagatca tcattgacac 180

ctacngtggc tggggagccc atggtggtgg cgctttctcc ggcaaggacc caaccaaggt 240

tgaccgcagc ggagcctatg tcgcaaggca ggctgccaag agcatcgtnn ccagcggcct 300

tgctcgccgc gccatcgtcc aggtgtctta cgccatcggn gtgcccgagc ctctctccgn 360

gttcgtngac acgtactgna ccggcctatc cccnacaang agatcttaag attgtcaagg 420

agaactttta tttca 435

<210> 28
<211> 435
<212> nucleic acid
<213> Zea mays

<400> 28

agcccacggc gggggcgcct tctccggcaa ggaccccacc aaggtggacc gcagcggggc 60

ctacgtcgcc aggcaggccg ccaagagcat cgtggccagc ggcctcgccc gccgctgcct 120

cgtgcaggtg tcctacgcca tcggcgtgcc ggagcccctg tccgtgttcg tcgactccta 180

cggcaccggg accatccccg acaaggagat cctaaagatc gtcaaggaga acttcgactt 240

caggccaggg atggtcacca tcaacctcga cctcaagaag ggcggcaaca ggttcatcaa 300

gaccgccgca tacggncact ttggccgtga cgacgccgac ttcacctggg aggtggtcaa 360

gcccctaaag aangcattcc gcttaagaat gtattgggaa gttcactgga catgaagttc 420

atcttcgtct ggctt 435

<210> 29
<211> 484
<212> nucleic acid
<213> Zea mays

<400> 29

ttcgnatggt tcanactgcc annacagntc aaggnctcgc gggtcgannc angcctcnag 60

gcanntncgc ntgactgagg cccgacggca agacccaggt gacggtggag tacgtgaacg 120

agggcggcgc catggtgccc gtccgcgtgc acaccgtgct catctccacc cagcacgacg 180

agaccgtcac caacgacgag atcgccgccg acctcaagga gcacgtcatc aagcccgtga 240

tccctgagaa gtacctcgac gagaagacca tcttccacct caacccgtcc gggcgcttcg 300

tcatcggcgg gccccacggt gacgccggcc tcaccggccg caagatnatc atcgacacgt 360

acggcggctg gggagcccac ggcggtggcg ccttctccgg caaggacccc accaaaggtg 420

gaccgcaacg gcgcctaagn nggccaaggc agggccgcca annagnnttc ntgncaagcg 480

ggng 484

<210> 30
<211> 416
<212> nucleic acid
<213> Zea mays

<400> 30

ctcacagagg ttcgcaagaa tggaacctgg ccctggctca ggcccgatgg gaagacccag 60

gtgacagtgg agtaccgcaa cgagggtggc gccatggttc ccatccgtgt gcacacagtc 120

ctcatctcta cccagcacga cgagacagtc accaacgacg agattgctgc tgacctgaag 180

gagcacgtca tcaagccagt catccccgag cagtacctcg acgagaagac aatcttccac 240

ctcaacccgt ctggccgntt cgtcatcggc ggacctnacg gcgacgccgg cctactggcc 300

gnaagatcat catcgacacc tacggtggct ggggagccca cggcgggggc gccttcttcg 360

gcaaggaccc gaccaangtg gaccgcacgg ggcctacgtn cgaggnaagc ttgcna 416

<210> 31
<211> 484
<212> nucleic acid
<213> Zea mays

<400> 31

attggtggac ctcacggcga tgctggcctc actggccgca agatcatcat tgacacctac 60

gggggctggg gagcccatgg tggtggcgct ttctccggca aggacccaac caaggttgac 120

cgcagcggag cctatgtcgc aaggcaggct gccaagagca tcgtcgccag cggccttgct 180

cgccgcgcca tcgtccaggt gtcttacgcc atcggcgtgc ccgagcctct ctccgtgttc 240

gtcgacacgt acggcaccgg cgcgatcccc gacaaggaga tcctcaagat tgtcaaggag 300

aacttcgatt tcaggcctgg catgatcatc atcaaccttg acctcaagaa aggcggcaac 360

gggccgctac ctnaagacgg cggnctacgg gcacttttgg aaagggacca acctgacttn 420

acctgggaag gggtgaaccc cttaagtcgg agaaaccctt ttgctaaggg ggccttttt 480

ttaa 484

<210> 32
<211> 477
<212> nucleic acid
<213> Zea mays

<400> 32

aactttattg ccaggcacgg taaangaatc ccgggtcgac ccacgcgtcn gaggaccccc 60

caaggtggac cgcagcggcg cctacgtggc caggcaggcc gccaagagca tcgtggccgc 120

ggcctcgccc gccgctgcct cgtgcaggtg tcgtacgcca tcggtgtgcc ggagccctgt 180

ccgtgttcgt cgactcgtac ggcaccggca cgatccccga caaggagatc ctcaagtcgt 240

gaaggagaac ttcgacttca ggcccgggat gatcagcatc aacctcgacc tgaagagggc 300

ggcaacaggt tcatcaagac cgccgcttac ggccatttcg gccgtgacga cgccacttca 360

cctgggaagt ggtgaagccc ctcaagttcg acaaggcatc cggcttaang ttggaatnnt 420

caacggtggg gcatgaggac taccttcctc cnggctctgc tgttacctgc aacattg 477

<210> 33
<211> 488
<212> nucleic acid
<213> Zea mays

<400> 33

ggnnnnnnnn naactgttac gcntgccggt gccggtccag aattcacggg tcgacccacg 60

cgtccgcgtt tgcctcttct ccctcttgcc gggtcccgaa taaagagcag cagcgcaaga 120

gtcggtagag cgagaagaag gcaatggcgg ccgagagctt ccttttcacc tcggagtccg 180

tgaacgaggg gcaccccgac aagctgtgcg accaggtgtc ggacgccgtg cttgacgcat 240

gcctcgcgca ggaccccgac agcaaggtgg cctgcgagac ctgcaccaag accaacatgg 300

tgatggtgtt cggcgagatc acgaccaagg cgaccgtgga ctacgagaag atcgtgcgcg 360

acacctgccg cgagatcggg ttcacctccg acgacgtggg cctcgacgcc gaccgctgca 420

aggtgctggt gaacatcgag caacagtccc cgacatcgcg caaggcgtgc acgggcactt 480

cacgaaac 488

<210> 34
<211> 480
<212> nucleic acid
<213> Zea mays

<400> 34

ggggnnngnn ggtctctttt ggccnnnnnn nnnnnnnnnn nnnnnnnnnn nnnnnnnncc 60

acgcntccgc gtttgcctct tctccctctt gccggtcccg aataaagagc agcagcgcaa 120

gaggtcggta gagcgagaag aaggcaatgg cggccgagag cttccttttc acctcggagt 180

ccgtgaacga ggggcacccc gacaagctgt gcgaccaggt gtcggacgcc gtgcttgacg 240

catgcctcgc gcaggacccc gacagcaagg tggcctgcga gacctgcacc aagaccaaca 300

tggtgatggt gttcggcgag atcacgacca aggcgaccgt ggactacgag aagatcgtgc 360

gcgacacctg ccgcgagatc gggttcacct ccgacgacgt gggcctcgac gccgaccgct 420

gcaaggtgct ggtgaacatc gagcagcagt cccccgacat cgcgcanggc gtgcacgggc 480

<210> 35
<211> 453
<212> nucleic acid
<213> Zea mays

<400> 35

ccgttcgcct cttctcctcc ctcctgccgg gtccttaata aagagcagca ncgcaagagg 60

tnggtagagc gagcgagaag aaggcaatgg cggcggagag cttcctgttc acctcggagt 120

ccgtgaacga ggggcaccca gacaagctgt gcgaccaggt gtcggacgcg gtgctggacg 180

cctgcctggc gcangacccc gacagcaagg tggcctgcna gacctgcacc aagacgaaca 240

tggtgatggt gttcggcgag atcaccacca aggcgagcgt ggactacgag aagatcgtgc 300

gcgacacctg ccgcgagatc gggttcacct tcgacgacgt ggggctcgac nccnaccgct 360

gcaaggtgct ggtgaacatc gagcagcagt cccccgacat cgcgcaaggc gtgcacggca 420

ctttacgaaa ccggcccgag gagatcggcc cnt 453

<210> 36
<211> 505
<212> nucleic acid

<213> Zea mays

<400> 36

agggttgttg anngttggnt anatganann tgcttttacn cggtttcgga attcccgggt 60

cgacccacgc gtccgcccgt tcgcctcttc tnctncctcc tgtcgggtcc ttaataaaga 120

gcagcagcgc aagaggttgg tagagcgagc gagaagaagg caatggcggc ggagagcttc 180

ctgttcacct cggagtccgt gaacgagggg cacccagaca agctgtgcga ccaggtgtcg 240

gacgcggtgc tggacgcctg cctggcgcan gaccccgaca gcaaggtggc ctgcgagacc 300

tgcaccaaga cgaacatggt gatggtgttc ggcgagatca ccaccaaggc gagcgtggac 360

tacgagaaga tcgtgcgcga cacctgccgc gagatcgggt tcacctncga cgacgtgggg 420

ctcgacgccg accgctgcaa ggtgctggtg aacatcgagc ancagtcccc cgacatcgcg 480

cagggcgtgc acgggcactt tacga 505

<210> 37
<211> 447
<212> nucleic acid
<213> Zea mays

<400> 37

gcagtcccct gatattgctc agggtgtgca cggccacttc accaagcgnc ccgaggagat 60

tggagctggt gaccaggggc acatgtttgg gtatgcgact gacgagaccc ctgagctgat 120

gcccctcagc catgtccttg ccaccaagct tggtgctcgt ctcacagagg ttcgcaagaa 180

tggaacctgc ccctggctca ggcccgatgg gaagacccag gtgacagtgg agtaccgcaa 240

cgagggtggc gccatggttc ccatccgtgt gcacacagtc ctcatctcta cccaacacga 300

cgagacangt caccaacgac gaagattgct gctgacctga aaggaacaac gtcatcaaac 360

caagtcatnc ccgaacagta cctttgacga gaagacaatc tttcanctta acccgtctgg 420

nccntttgtc atnngnggac ctnaacg 447

<210> 38
<211> 420
<212> nucleic acid
<213> Zea mays

<400> 38

ggncgctttg tcattggtgg acctcacggc gatgctggcc tcactggccg caagatcntc 60

atngacacct acggtggctg gggagcccat ggtggtggcg ctttctccgg caaggaccca 120

accaaggttg accgcagcgg agcctatgtc gcaaggcagg ctgccaagag catcgtcgcc 180

agcggccttg ctcgccgcgc catcgtccag gtgtcttacg ccatcggcgt gcccgagcct 240

ctctccgtgt tcgtcgacac gtacggcacc ggcgcgatcc ccgacaagga gatcctcaag 300

attgtcaaag gagaacttcg atttcaggcc tggcatgatc atcatcaacc ttgacctcaa 360

gaaaggcggc aacgggcgct tancttaaga acggcggnct acgggcactt ttggaangga 420

<210> 39
<211> 499
<212> nucleic acid
<213> Zea mays

<400> 39

cccatctggc cgctttgtca ttggtggacc tcacggcgat gctggcctca ctggccgcaa 60

gatcatcatt gacacctacg gtggctgggg agcccatggt ggtggcgctt tctccggcaa 120

ggacccaacc aaggttgacc gcagcggagc ctatgtcgca aggcaggctg ccaagagcat 180

cgtcgccagc ggccttgctc gccgcgccat cgtccaggtg tcttacgcca tcggcgtgcc 240

cgagcctctc tccgtgttcg tcgacacgta cggcaccggc gcgatccccg acaaggagat 300

cctcaagatt gtcaaggaga acttcgattt caggcctggc atcatcatca accttgacct 360

caagaaaggc ggcaacgggc gctacctnaa gacggcggcc tacggcactt tggaagggac 420

gaccctgact tcacctggga ggtggtgaaa ccactcaaag tcggagaaac cttntgctaa 480

agcnggcttt tttttaaaa 499

<210> 40
<211> 494
<212> nucleic acid
<213> Zea mays

<400> 40

ggnnnnngnn nngttaact tntccgccgg caggtaangg tcaagaattc ccgggtcgac 60

cacgcgtccg ctcnctcttg ccggtcccga ataaanagca gcagcgcang aggtcggtga 120

gcgagaagaa ggcaatggcg gccgagagct tccttttcac ctcggantcc gtgaacgggg 180

gcaccccgac aagctgtgcg accaggtgtc ggacgccgtg cttgacgcat gcctcggcag 240

gaccccgaca gcaangtggc ctgcgagacc tgcaccaaga ccaacatggt gatgggttcg 300

gcgagatcac gaccaaggcg accgtggact acgagaagat cgtgcgcgac acctccgcga 360

gatngggttc acctccgacg aactgggcct cnaacgccga accgctgcaa ggtctggtga 420

acatcnanca gcatttcccc gacatcgcgc agggcntgca cgggcacttc acaagcngcc 480

cgaggagatc ngcg 494

<210> 41
<211> 499
<212> nucleic acid
<213> Zea mays

<400> 41

gggnttnntn tgntgnngat ntntggcnnn ccggtccgga attcccgggt cgacccacgc 60

gtccgnccac gcgtccgcat catcgacacg tacggnggct ggggagccca cggcggtggc 120

gcctnctccg gcaaggaccc caccaaggtg gaccgcagcg gcgcctacgt ggccaggcag 180

gccgccaaga gcatcgtggc cagcggcctc gcccgccgct gcctcgtgca ggtgtcgtac 240

gccatcggcg tgccggagcc cctgtccgtg ttcgtcgact cgtacggcac cggcacgatc 300

cccgacaagg agatcctcaa gatcgtgaag gagaacttca acttcaggcc cgggatgatc 360

agcatcaacc tcgacctgaa gaanggcggc aacaggttca tcangaccga cgctacggcc 420

acttcggccg tgacgacgcc gactttacct gggaagtggt gaagcccctt aagttccaca 480

aggattnggt ttaaggttg 499

<210> 42
<211> 325
<212> nucleic acid
<213> Zea mays

<400> 42

cccgacggca agacccaggt gacggtggag tacgtgaacg anggcggcgc catggtgccc 60

gtccgcgtgc acaccgtgct catctccacc cagcacgacg agaccgtcac cnaacgacga 120

gatcgccgcc gacctcaagg agcacgtcat caagcccgtc atcccggaga ggtacctgga 180

cgagaagacc atcttccacc tcaacccgtc ggggcgcttc gtcatcggcg ggccccacgg 240

ggacgccggc ctcaccggcc gcaagatcat catcgacacc tacggcggct ggggagccca 300

cggcgggggc gccttctccg gcaag 325

<210> 43
<211> 319
<212> nucleic acid
<213> Zea mays

<400> 43

agcggcccga ggagatcggc gcgggcgacc agggccacat gttcgggtac gccaccgacg 60

agacccccga gctgatgccg ctgagccacg tgctggccac caagctgggc gcgcgcctca 120

ccgaggtgcg caagaacggc acctgcgcct ggctgaggcc cgacggcaag acccaggtga 180

cggtggagta cgtgaacgag ggcggcgcca tggtgcccgt ccgcgtgcac accgtgctca 240

tctccaccca gcacgacgag accgtcacca acgacgagat cgccgccgac ctcaaggagc 300

acgtcatcaa gcccgtgat 319

<210> 44
<211> 429
<212> nucleic acid
<213> Zea mays

<400> 44

ggaacctgcc cctggctnag gcccgatggg aagacccagg tgacagtgga gtaccgcaac 60

gagggtggcg ccatggttcc catccgtgtg cacacagtcc tcatctctac ccagcacgac 120

gagacagtca ccaacgacga gattgctgct gacctgaagg agcacgtcat caagccagtc 180

atccccgagc agtacctnna cnagaagaca atcttcacct caacccgtnt ggccgcttcg 240

tcatcggcgg accttacggc gacnccggcc tnactggccg gaaagatcat natcgacacc 300

tacggtggct ngggagccca cggcgggggc gccttnttcg gcaaggaccc gaccaaagtt 360

gaccgcaacg gggcctacgt ngcgaggcaa gcttgcaana ncatngtnnn ccgccgnctt 420

nccgcggnc 429

<210> 45
<211> 315
<212> nucleic acid
<213> Zea mays

<400> 45

cgggcgacca gggccacatg ttcgggtacg ccaccgacga gacccccgag ctgatgccgc 60

tgagccacgt gctggccacc aagctgggcg cgcgcctcac cgaggtgcgc aagaacggca 120

cctgcgcctg gctgaggccc gacggcaaga cccaggtgac ggtggagtac gtgaacgagg 180

gcggcgccat ggtgcccgtc cgcgtgcaca ccgtgctcat ctccacccag cacgacgaga 240

ccgtcaccaa cgacgagatc gccgccgacc tcaaggagca cgtcatcaag cccgtgatcc 300

ctgagaagta cctcg 315

<210> 46
<211> 474
<212> nucleic acid
<213> Zea mays

<400> 46

ggggtcggnn gtnattctat antgataana ctcanataan tnnngnctcn taggaccntt 60

anaannccct agagtnagtc gtttaacggc gggggcgcct tctccggcaa ggacccgacc 120

aaggtggacc gcagcggggc ctacgtcgcg aggcaggctg ccaagagcat cgtcgccgcc 180

ggcctcgccc gccgtgccat cgtccaggtc tcctacgcca tcggcgtgcc cgagcccctg 240

tcggtgttcg tggacacgta cggcaccggc gcgatccccg acaaggagat cctgaagatc 300

gtgaaggaga acttcgactt caggcccggc atgatcatca tcaacctcga cctcaagaaa 360

ggcggcaacg ggcgctacct caagacggcg gcctacgggc actttgggag ggacgaaccc 420

gacttcacct gggaagtngt taaacccccc naaggcggaa aanccttntt ctgg 474

<210> 47
<211> 410
<212> nucleic acid
<213> Zea mays

<400> 47

gtgcgcgaca cctgccgcga gatcgggttc acctccgacg acgtgggcct cgacgccgac 60

cgctgcaagg tgctggtgaa catcgagcag cagtcccccg acatcgcgca nggcgtgcac 120

gggcacttca cgaagcggcc cgaggagatc ggcgcgggcg accagggcca catgttcggg 180

tacnccaccg acnagacccc cgagctgatg ccgctcagcc acgtgctggc caccaagctn 240

ggcncgcgcc tcaccgaggt tccgcaagac gggnacctgc gcctggntga nggcccgacg 300

gcaagaccaa ggtnacggtg gagtacgtga actagggcgg ctccattggt gccctccgcg 360

ttcaaaaccg tgctaatntc accaagnact actaagaccg tnnccaacaa 410

<210> 48
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 48

ttgcccgtcc gcgtgcacac cgtgctcatc tccacccagc acgacgagac cgtcaccaac 60

gacgagatcg ccgccgacct caaggagcac gtaatcaagc ccgtcatccc gganaggtac 120

ctggacgaga agaccatctt ccacctcaac ccgtcggggc gcttcgtcat cggcgggccc 180

cacggggacg ccggcctcac cggccgcaag atcatcatcg acacctacgg cggctgggga 240

gcccacggcg ggggcgcctt ctccggcaag gaccccacca aggtggaccg cagcggg 297

<210> 49
<211> 438
<212> nucleic acid
<213> Zea mays

<400> 49

ctggcctcac tggccgnaag atcatcatcg acacctacgg tggctgggga gcccacggcg 60

ggggcncctt ctccggcaag gacccgacca aggtggaccg cagcggggcc tacgtcgcga 120

ggcaggctgc caagagcatc gtcgccgccg gcctcgcccg ccgtgccatc gtccaggtct 180

cctacgccat cggcgtgccc gagcccctgt cggtgttcgt ggacacntac ggcaccggcg 240

cgatccccga caaggagatc ctgaagatcg tgaaggagaa cttcgacttc angcccggca 300

tgatcatcat caacctngac ctcaagaaag gcggnnacgg nccgctacct taaanaacgg 360

nnggcctacg ggcactttgg gaagggacna accccnattt aacctgggaa gtggttnaac 420

cccttaaggc ggaaaaaa 438

<210> 50
<211> 316
<212> nucleic acid
<213> Zea mays

<400> 50

cgtgaacgag gggcacccag acaagctgtg cgaccaggtg tcggacgcgg tgctggacgc 60

ctgcctggcg caggaccccg acagcaaggt ggcntgcgag acntgcacca agacgaacat 120

ggtgatggtg ttcggcgaga tcaccaccaa ggcgagcgtg gactacgaga agatcgtgcg 180

cgacacctgc cgcgagatcg ggttcacctc cgacgacgtg gggctcgacg ccgaccgctg 240

caaggtgctg gtgaacatcg ancagcagtc ccccgacntc gcgcagggcg tgcacgggca 300

nttcacgaag cggccc 316

<210> 51
<211> 339
<212> nucleic acid
<213> Zea mays

<400> 51

acacagtcct catctctacc cagcacgacg agacagtcac caacgacgag attgctgctg 60

acctgaagga gcacgtcatc aagccagtca tccccgagca gtacctcgac gagaagacaa 120

tcttccacct caacccgtct ggccgcttcg tcatcggcgg acctcacggc gacgcggctc 180

tcactggccg gaagatcatc atcgacacct acggtggctg gggagcccac ggcggggcgc 240

cttctccggc aangacccga ccaaggtgga ccgcagcggg gcctacgtcg cgaggcaggc 300

tgccaagagc atcgtcgccg cggcctcgcc gcngcgctt 339

<210> 52
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 52

agaagatcgt gcgcgacacc tgccgcgaga tcgggttcac ctccgacgac gtgggcctcg 60

acgccgaccg ctgcaaggtg ctggtgaaca tcgagcagca gtcccccgac atcgcgcagg 120

gcgtgcacgg gcacttcacg aagcggcccg aggagatcgg cgcgggcgac cagggccaca 180

tgttcgggta cgccaccgac gagaccccg agctgatgcc gctgagccac gtgctggcca 240

ccaagctggg cgcgcgcctc accgaggtgc gcaagaacgg cacctgcgcc tggctgaggc 300

<210> 53

<211> 303
<212> nucleic acid
<213> Zea mays

<400> 53

gccccgaggag atcggcgcgg gcgaccaggg gccacatgtt cgggtacgcc accgacgaga 60

cccccgagct gatgccgtga gccacgtgct ggccaccaag ctgggcgcgc gcctcaccga 120

ggtgcgcaag aacggcacct gcgcctggct gaggcccgac ggcaagaccc aggtgacggt 180

ggagtacgtg aacgagggcg gcgccatggt gcccgtccgc gtgcacaccg tgctcatctc 240

cacccagcac gacgagaccg tcaccaacga cgagatcgcc gccgacctca aggagcacgt 300

cat 303

<210> 54
<211> 477
<212> nucleic acid
<213> Zea mays

<400> 54

tatttncccg ccaggtacaa gtcaagaatt cccgggtcga cccacgcgtc cgcccacgct 60

ccgcccacgc gtccgcccac gcgtccggcg gggcctacgt cgcgaggcag gctgccaaag 120

catcgtcgcc gccggcctcg cccgccgcgc cattgtccag gtctcctacg ccatcgggtg 180

cccgagcccc tttcggtgtt cgtggacacg tacggcaccg gcgcgatccc cgacaagaga 240

tcctgaagat cgtgaaggag aacttcgact tcaggcccgg catgatcatc atcaactcga 300

cctcaagaaa ggcggcaacg ggcgctacct caagacggcg gcctacgggc acttgggagg 360

gacgaccccg acttcacctg ggaggtggtg aagcccctca aggcggaaaa acctcttctg 420

caagaagggc ctccccccggt tttggaanaa gcttttggtc tggtctggtc tgtctgg 477

<210> 55
<211> 487
<212> nucleic acid
<213> Zea mays

<400> 55

ggnnnnngna antttaaccn ctagtaggac tgannggtca ggnattcacg ggtcgancca 60

cgcgtccatg cggctcttct ccctcttgcc ggtcccgaat aaagagcagc agcgcaagag 120

gtcggtagag cgagaagaag gcaatggcgg ccgagagctt ccttttcacc tcggagtccg 180

tgaacnaggg gcaccccgac aagctgtgcg accaggtgtc ggacgccgtg cttgacgcat 240

gcctcgcgca ggaccccgac agcaaggtgg cctgcgagac ctgcaccaag accaacatgg 300

tgatggtgtt cggcgaagat cacgaccaag gcgaccgtgg actacgaaga agatcgtgcg 360

cgacacctgc cgcgagatcg ggttcacctc cgacgacgtg ggcctcgacg ccgaccgctg 420

caangtgctg ggtgaacatc gagcagcagt cccccgacat cgcgcaaggc gtgcacgggc 480

acttcac 487

<210> 56
<211> 299
<212> nucleic acid
<213> Zea mays

<400> 56

acctgcacca agaccaacat ggtcatggtc tttggtgaga tcaccaccaa ggccaatgtt 60

gactacgaga agattgtcag ggagacctgc cgcaacattg gttttgtgtc aaacgatgtt 120

gggcttgacg ccgancactg caaggtgctc gtgaacattg agcagcagtc ccctgatatt 180

gctcagggtg tgcatggcca cttcaccaag cgccccgagg agattggagc tggtgaccag 240

ggacacatgt tcgggtatgc naccgatgag acccctgagt tgatgcccct cagccatgt 299

<210> 57
<211> 315
<212> nucleic acid
<213> Zea mays

<400> 57

acgatgtcgg gcttgacgct gaccactgca aggtgcttgt gaacattgag cagcagtccc 60

ctgatattgc tcagggtgtg cacggccact tcaccaagcg ccccgaggag attggagctg 120

gtgaccaggg gcacatgttt gggtatgcga ctgacgagac ccctgagctg atgcccctca 180

gccatgtcct tgccaccaag cttggtgctc gtctcacggn ggttcgcaag aatggaacct 240

gcccctggct caggcccgat gggaagaccc aggtgacagt ggagtaccgc aacgaaggtg 300

gcgcatgggt tccca 315

<210> 58

<211> 328
<212> nucleic acid
<213> Zea mays

<400> 58

cgtctggccg cttcgtcatc ggcggacctc acggcgacgc tggcctcact ggccggaaga 60

tcatcatcga cacctacggt ggctggggag cccacggcgg gggcgccttc tccggcaagg 120

acccgaccaa ggtggaccgc agcggggcct acgtcgcgag gcaggctgcc aagagcatcg 180

tcgccgccgg cctcgcccgc cgtgccatcg tccaggtctc ctacgccatc ggcgtgcccg 240

anccccctgtc ggtgttcgtg gacacgtacg gcaccggcgc gatccccgac aaggagatcc 300

tgaagatcgt gaaggagaat tcgacttc 328

<210> 59
<211> 291
<212> nucleic acid
<213> Zea mays

<400> 59

cgagctgatg ccgctgagcc acgtgctggc caccaagctc ggcgcgcgnc tgacggaggt 60

ccgcaaggac ggcacctgcn cctggctcag gcccgacggc aagacccagg tgacggtgga 120

gtacgtgaac ganggcggcg ccatggtgcc cgtccgcgtg cacaccgtgc tcatctccac 180

ccagcacgac gagaccgtca ccaacgacga gatcgccgcc gacctcaagg agcacgtcat 240

caagcccgtc atcccggaga ggtacctgga cgagaagacc atcttccacc t 291

<210> 60
<211> 305
<212> nucleic acid
<213> Zea mays

<400> 60

gggtatgcga ccgatgagac ccctgagttg atgcccctca gccatgtcct tgccaccaag 60

ctaggtgctc gtctcaccga ggtccgcaag aacggaacct gcccctggct caggcctgat 120

gggaagaccc aggtgacagt cgagtaccgc aatgagggtg gtgccatggt ccccatccgt 180

gtccacaccg tcctcatctc cacccagcac gacgagacag tgaccaatga tgagatcgct 240

gctgacctga aggagcatgt catcaagcct gtcatccctg agcagtacct tgacgagaag 300

accat 305

<210> 61
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 61

ggcctgcgag acctgcacca agaccaacat ggtgatggtg ttcggcgaga tcacgaccaa 60

ggcgaccgtg gactacgaga agatcgtgcg cgacacctgc cgcgagatcg ggttcacctc 120

cgncgacgtg ggcctcgacg ccgnccgctg caaggtgctg gtgaacatcg agcagcagtc 180

ccccgacatc gcgcagggcg tgcacgggca cttcacgnag cggnccgagg agatnggngc 240

gggcgaccag ggncacatgt tcgggtacgn caccgacgag acccccgagc tgatgccgct 300

<210> 62
<211> 558
<212> nucleic acid
<213> Zea mays

<400> 62

gnnnngtncc cnnnttnnnn tntttgncag nacncttntt cgcctgcacg tactcggtcc 60

ggaattcccg ggtcgaccca cgcgtccgcc cacgcgtccg cccacgcgtc cgcccacgcg 120

tccgcccacg cgtccgccca cgcgtccggc ctcttctccc tcttgccggt cccgaataaa 180

gagcagcagc gcaagaggtc ggtagagcga gaagaaggca atggcggccg agagcttcct 240

tttcacctcg gagtccgtga acgaggggca ccccgacaag ctgtgcgacc aggtgtcgga 300

cgccgtgctt gacgcatgcc tcgcgcagga ccccgacagc aaggtggcct gcgagacctg 360

caccaagacc aacatggtga tggtgttcgg cgagatcacg accaaggcga ccgtggacta 420

cgagaagatc gtgcgcgaca cctgccgcga gatcgggttc acctncgacg acgtgggcct 480

tnacgccnac cnntgcaagg tnctggtgaa cattgagcaa naattcccng gactttnngc 540

anggcgttca cnggcant 558

<210> 63
<211> 332
<212> nucleic acid
<213> Zea mays

<400> 63

gcccctgggc tcaggcctga tgggaagacc caggtgacag tcgagtaccg caatgagggt 60

ggtgccatgg tccccatccg tgtccacacc gtcctcatct ccacccagca cgacgagaca 120

gtgaccaatg atgagatcgc tgctgacctg aaggagcatg tcatcaagcc tgtcatccct 180

gagcagtacc ttgacgagaa gaccatcttc caccttaacc catctggccg ctttgtcatg 240

tggacctcac ggcgatgctg gcctcactgg ccgcaagatc atcatgacac ctacggtggc 300

tggggagccc atggtggtgg cgctttctcc gg 332

<210> 64
<211> 314
<212> nucleic acid
<213> Zea mays

<400> 64

ctcggagtct gtgaacgagg gacaccctga caagctctgt gaccaggtct cagatgccgt 60

tcttgacgct tgccttgctg aggaccctga cagcaaggtt gcttgtgaga cctgcaccaa 120

gaccaacatg gtcatggtct ttggtgagat caccaccaag gccaatgttg actacgagaa 180

gattgtcagg gagacctgcc gcaacattgg ttttgtgtca aacgatgttg ggcttgacgc 240

cgaccactgc aagtgctcgt gaacattnag cagcagtccc ctgatattgc tcanggtgtg 300

catggccact tcac 314

<210> 65
<211> 293
<212> nucleic acid
<213> Zea mays

<400> 65

ggacgagaag accatcttcc acctcaaccc gtcggggcgc ttcgtcatcg gcgggcccca 60

cggggacgcc ggcctcaccg gccgcaagat catcatcgac acctacggcg gctggggagc 120

ccacggcggg ggcgccttct ccggcaagga ccccaccaag gtggaccgca gcggggccta 180

cgtcgccagg caggccgcca agagcatcgt ggccagcggc ttcgcccgcc gctgcctcgt 240

gcaggtgtcc tacgccatcg ggtgccggag cccctgtccg tgttcgtcga ctc 293

<210> 66

<211> 289
<212> nucleic acid
<213> Zea mays

<400> 66

gcaaggtggc ctgcgagacc tgcaccaaga cgaacatggt gatggtgttc ggcgagatca 60

ccaccaaggc gagcgtggan tacgagaagn tcgtgcgcga cacctgccgc gagatcgggt 120

tcacctccga cgacgtgggg ctcgacgccg accgctgcaa ggtgctggtg aacatcgagc 180

agcagtcccc cgacatcgcg cagggcgtgc acgggcactt cacgaagcgg cccgaggaga 240

tcggcgccgg cgaccagggc cacatgttcg ggtacgccac cgacgagac 289

<210> 67
<211> 306
<212> nucleic acid
<213> Zea mays

<400> 67

gttgactacg agaagattgt cagggagacc tgccgcaaca ttggttttgt gtcaaacgat 60

gttgggcttg acgccgacca ctgcaaggtg ctcgtgaaca ttgagcagca gtcccctgat 120

attgctcagg gtgtgcatgg ccacttcacc aagcgccccg aggagattgg agctggtgac 180

cagggacaca tgttcgggta tgcgaccgat gagacccctg agttgatgcc cctcagccat 240

gtccttgcca ccaagctagg tgctcgtctc accgaggtcc gcaagaacgg aacctgcccc 300

tggctc 306

<210> 68
<211> 303
<212> nucleic acid
<213> Zea mays

<400> 68

tgacaagctc tgtgaccagg tctcagatgc cgttcttgac gcttgccttg ctgaggaccc 60

tgacagcaag gttgcttgtg agacctgcac caagaccaac atggtcatgg tctttggtga 120

gatcaccacc aaggccaatg ttgactacga gaagattgtc agggagacct gccgcaacat 180

tggttttgtg tcaaacgatg ttgggcttga cgccgaccac tgcaaggtgc tcgtgaacat 240

tgagcagcag tcccctgata ttgctcaggg tgngcatggc cacttcacca agcgccccga 300

gga 303

<210> 69
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 69

caaagaccaa catggtcatg gtctttggtg agatcaccac caaggccaat gtcgactacg 60

agaagattgt cagggagaca tgccgcaaca ttggtttcgt ntcgaacgat gtcgggcttg 120

acgctgacca ctgcaaggtg cttgtgaaca ttgagcagca gtcccctgat attgctcagg 180

gtgtncacgg ccacttcacc aagcgccccg aggagattgg agctggtgac caggggcaca 240

tgtttgggta tgcgactgac gagacccctg agctgatgcc cctcagccat gtccttgcca 300

<210> 70
<211> 329
<212> nucleic acid
<213> Zea mays

<400> 70

gatcaaagaa gatggcagct gtcgacacat tcctcttcac ctcggagtct gtgaacgagg 60

gacaccctga caagctctgt gaccaggtct cagatgccgt tcttgacgct tgccttgctg 120

aggaccctga cagcaaggtt gcttgtgaga cctgcaccaa gaccaacatg gtcatggtct 180

ttggtgagat caccaccaag gccaatgttg actacgagaa gattgtcagg gagacctgcc 240

gcaacattgg ttttgtgtca aacgatgttg ggcttgacgc cgaccattgc aaggtgcncg 300

tgaanatnng cancagtccc ctgatattg 329

<210> 71
<211> 304
<212> nucleic acid
<213> Zea mays

<400> 71

gctgaggacc ctgacagcaa ggntgcttgc naganctgca ccaagaccaa catggtcatg 60

gtctttggng agatcaccac caaggccaat gtcgactacg agaagattgt cagggagaca 120

tgccgcaaca ttggtttcgt gtcgaacgan gtcgggcntg angctgacca ctgcaaggng 180

cttgtgaaca ttgagcagca gtcccctgat attgctcagg gtgtgcacgg ccacttcacc 240

aagcgccccg aggagattgg agctggtgac caggggcaca tgtttgggta tgcgactnac 300

gaga 304

<210> 72
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 72

cgcttgcctt gctgaggacc ctgacagcaa ggttgcttgt gagacctgca ccaagaccaa 60

catggtcang gnccttggt gagatcacca ccaaggccaa tgttgactac gagaagattg 120

tcagggagac ctgccgcaac attggttttg tgtcaaacga tgttgggctt gacgccgacc 180

actgcaaggt gctcgtgaac attgagcagc agtcccctga tattgctcag ggtgtgcatg 240

gccacttcac caagcgcccc gaggagattg gagctggtga ccagggacac atgttcgggt 300

atgcgac 307

<210> 73
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 73

gccaccgacg agacccccga gctgatgccg ctgagccacg tgctggccac caagctcggc 60

gcgcgcctga cggaggtccg caaggacggc acctgcgcct ggctcaggcc cgacggcaag 120

acccaggtga cggtggagta cgtgaacgag ggcggcgcca tggtgcccgt ccgcgtgcac 180

accgtgctca tctccaccca gcacgacgag accgtcacca acgacgagat cgccgccgat 240

ctcaaggagc acgtcatcaa gcccgtcatc ccggagaggt ac 282

<210> 74
<211> 320
<212> nucleic acid
<213> Zea mays

<400> 74

caagcttggt gctcgtctca cggaggttcg caagaatgga acctgcccct ggctcaggcc 60

cgatgggaag acccaggtga cagtggagta ccgcaacgag ggtggcgcca tggttcccat 120

ccgtgtgcac acagtcctca tctctaccca gcacgacgag acagtcacca acgacgagat 180

tgctgctgac ctgaaggagc acgtcatcaa gccagtcatc cccgagcagt acctcgacga 240

gaagacaatc ttccacctca acccgtctgg ccgcttcgtc atcggcggac tcacggcgac 300

ctggcctcac tggccggaag 320

<210> 75
<211> 370
<212> nucleic acid
<213> Zea mays

<400> 75

agagcatcgt ggccagcggc ctcgcccgcc gctgcctcgt gcaggtgtcc tacgccatng 60

gcgtgccgga gcccctgtca gtgttcgtcg actcctacgg caccgggacc atccccgaca 120

aggagatcct caagatcgtc aaggagaact tcgacttcag gcccgggatg atcaccatca 180

acctcgacct caagaagggc ggcaacaggt tcatcaagac cgccgcatac ggccactttg 240

gccgtgacga cgccgacttc acctgggagg tggtcaagcc cctaaagaag gcatccgctt 300

aagaatgtat tgggaagttc actggacatg aggttcatct tcgtctggct ctgctgatac 360

ctgcaaggat 370

<210> 76
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 76

atggaacctg cccctggctc aggcccgatg ggaagaccca ggtgacagtg gagtaccgca 60

acgagggtgg cgccatggtt cccatccgtg tgcacacagt cctcatctct acccagcacg 120

acgagacagt caccaacgac gagattgctg ctgacctgaa ggagcacgtc atcaagccag 180

tcatccccga gcagtacctc gacgagaaga caatcttcca cctcaacccg tctggccgct 240

tcgtcatcgg cggacctcac ggcgacgctg gcctcactgg ccggaagatc atcatcgaca 300

<210> 77
<211> 315
<212> nucleic acid

<213> Zea mays

<400> 77

ctcagatgcc gttcttgacg cttgccttgc tgaggaccct gacagcaagg ttgcttgtga 60

gacctgcacc aagaccaaca tggtcatggt ctttggtgag atcaccacca aggccaatgt 120

tgactacgag aagattgtca gggagacctg ccgcaacatt ggttttgtgt caaacgatgt 180

tgggcttgac gccgaccact gcaaggtgct cgtgaacatt gagcagcagt cccctgatat 240

tgctcagggt gtgcatggcc attcaccaag cgccccgang agattggagc tggtgaccag 300

gacacatgtt cgggg 315

<210> 78
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 78

ctcttcacct cggagtctgt gaacgaggga caccctgaca agctctgtga ccaggtctca 60

gatgccgttc ttgacgcttg ccttgctgag gaccctgaca gcaaggttgc ttgtgagacc 120

tgcaccaaga ccaacatggt catggtcttt ggtgagatca ccaccaaggc caatgttgac 180

tacgagaaga ttgtcaggga gacctgccgc aacattggtt ttgtgtcaaa cgatgttggg 240

cttgacgccg accactgcaa gtgctcgtga acattgagca gcagtcccct gatattg 297

<210> 79
<211> 448
<212> nucleic acid
<213> Zea mays

<400> 79

ttggtnagat caccaccaag gccaatgttg actacganaa gattgtnagg ganacctgtc 60

gcnacattgg ttttgtgtca aacgatgttg ggcttgacgc cgaccactgc aaggtgctcg 120

tgaacattna gcagnagtnc cctgatattg ctcanggtgt gcatggccac ttnaccaanc 180

gccccganga gattgganct ggtgaccagg gacacatgtt cgggtatgcg accgatgaga 240

cccctnagtt gatgcccctc agccatgtcc ttgccaccaa gctaggtgct cgtctnaccg 300

aggtncncaa gaaccggaac ctgccnctgg ctcangcctg atgngaagac cnatgtgaca 360

gtcnantnnc gnaatgaagg gtggtgccat tgtncccatc ctngtcaaca ccgttcttat 420

ttcaaccaag tnngacgagg acaatgac 448

<210> 80
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 80

caccgtcctc atctccaccc agcacgacga gacagtgacc aatgatgaga tcgctgctga 60

cctgaaggag catgtcatca agcctgtcat ccctgagcag taccttgacg agaagaccat 120

cttccacctt aacccatctg gccgctttgt cattggtgga cctcacggcg atgctggcct 180

cactggccgc aagatcatca ttgacaccta cggtggctgg ggagcccatg gtggtggcgc 240

tttctccggc aaggacccaa ccaaggttga ccgcagcgga gctatgt 287

<210> 81
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 81

gcaatgaggg tggtgccatg gtccccatcc gtgtccacac cgtcctcatc tccacccagc 60

acgacgagac agtgaccaat gatgagatcg ctgctgacct gaaggagcat gtcatcaagc 120

ctgtcatccc tgagcagtac cttgacgaga agaccatctt ccaccttaac ccatctggcc 180

gctttgtcat tggtggacct cacggcgatg ctggcctcac tggccgcaag atcatcattg 240

acacctacgg tggctgggga gcccatggtg gtggcgcttt ctccggcaag 290

<210> 82
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 82

tggacgcctg cctggcgcag gaccccgaca gcaaggtggc ctgcgagacc tgcaccaaga 60

cgaacatggt gatggtgttc ggcgagatca ccaccaaggc gagcgtggac tacgagaaga 120

tcgtgcgcga cacctgccgc gagatcgggn nnacctccga cgacgtgggg ctcgacgccg 180

accgctgcaa ggtgctggtg aacatcgagc agcagtcccc cgacatcgcg cagggcgtgc 240

acgggcactt cacgaagcgg cccgaggaga tcggcgccgg cgaccag 287

<210> 83
<211> 291
<212> nucleic acid
<213> Zea mays

<400> 83

atgcccctca gccatgtcct tgccaccaag ctaggtgctc gtctcaccga ggtccgcaag 60

aacggaacct gcccctggct caggcctgat gggaagaccc aggtgacagt cgagtaccgc 120

aatgagggtg gtgccatggt ccccatccgt gtccacaccg tcctcatctc cacccagcac 180

gacgagacag tgaccaatga tgagatcgct gctgacctga aggagcatgt catcaagcct 240

gtcatccctg agcagtacct tgacgagaag accatcttcc accttaaccc a 291

<210> 84
<211> 283
<212> nucleic acid
<213> Zea mays

<400> 84

tgccgctgag ccacgtgctg gccaccaagc tgggcgcgcg cctcaccgag gtgcgcaaga 60

acggcacctg cgcctggctg aggcccgatc ggcaagaccc aggtgacggt ggagtacgtg 120

aacgagggcg gcgccatggt gcccgtccgc gtgcacaccg tgctcatctc cacccagcac 180

gacgagaccg tcaccaacga cgagatcgcc gccgacctca aggagcacgt catcaagccc 240

gtgatccctg agaagtacct cgacgagaag accatcttcc acc 283

<210> 85
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 85

cgtgaacgag gggcaccccg acaagctgtg cgaccaggtg tcggacgccg tgcttgacgc 60

atgcctcgcg caggaccccg acagcaaggt ggcctgcgag acctgcacca agaccaacat 120

ggtgatggtg ttcggcgaga tcacgaccaa ggcgaccgtg gactacgaga agatcgtgcg 180

cgacacctgc cgcgagatcg ggttcacctc cgacgacgtg ggcctcgaca ccgaccgctg 240

caaggtgctg gtgaacatcg agcagcagtc cccc 274

<210> 86
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 86

ggagcacgtc atcaagccag tcatccccga gcagtacctc gacgagaaga caatcttcca 60

cctcaacccg tctggccgct tcgtcatngg cggacctcac ggcgacgctg gcctcactgg 120

ccggaagatc atcatcgaca cctacggtgg ctggggagcc cacggcgggg gcgccttctc 180

cggcaaggac ccgaccaagg tggaccgcag cggggcctac gtcgcgaggc aggctgccaa 240

gagcatcgtc gccgccggcc tcgcccgcng tgccatcgtc caggtctcct 290

<210> 87
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 87

gtcgacacat tcctcttcac ctcggagtct gtgaacgagg gacaccctga caagctctgt 60

gaccaggtct cagatgccgt tcttgacgct tgccttgctg aggaccctga cagcaaggtt 120

gcttgtgaga cctgcaccaa gaccaacatg gtcatggtct ttggtgagat caccaccaag 180

gccaatgttg actacgagaa gattgtcagg gagacctgcc gcaacattgg ttttgtgtca 240

aacgatgttg ggcttgacgc cgaccactgc aaggtgctcg tgaacattga 290

<210> 88
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 88

gcggccgaga gcttcctttt cacctcggag tccgtgaacg aggggcaccc cgacaagctg 60

tgcgaccagg tgtcggacgc cgtgcttgac gcatgcctcg cgcaggaccc cgacagcaag 120

gtggcctgcg agacctgcac caagaccaac atggtgatgg tgttcggcga gatcacgacc 180

aaggcgaccg tggactacga gaagatcgtg cgcgacacct gccgcgagat cgggttcact 240

ncgacgacgt gggcctcgac gccgaccgct gcaagnngct ngtgaact 288

<210> 89
<211> 289
<212> nucleic acid
<213> Zea mays

<400> 89

gcgactgacg agacccctga gctgatgccc ctcagccatg gttcccatcc gtgtgcacac 60

agtcctcatc tctacccagc acgacgagac agtcaccaac gacgagattg ctgctgacct 120

gaaggagcac gtcatcaagc cagtcatccc cgagcagtac ctcgacgaga agacaatctt 180

ccacctcaac ccgtctggcc gcttcgtcat cggcggacct cacggcgacg ctggcctcac 240

tggccggaag atcatcatcg acacctacgg tggctgggga gcccacggc 289

<210> 90
<211> 330
<212> nucleic acid
<213> Zea mays

<400> 90

ccctcttgcc ggtcccgaat aaagagcagc agcgcaagag gtcggtagag cgagaagaag 60

gcaatggcgg ccgagagctt ccttttcacc tcggagtccg tgaacgaggg gcaccccgac 120

aagctgtgcg accaggtgtc ggacgccgtg cttgacgcat gcctcgcgca ggaccccgac 180

agcaaggtgg cctgcgagac ctgcaccaag accaacatgg tgatggtgtt cggcgagatc 240

acgaccaagg cgaccgtgga ctacgagaag atcgtgcgcg acacctgccg cgagatcggg 300

ttcacctccg acgacgtggg cctcgacgcc 330

<210> 91
<211> 291
<212> nucleic acid
<213> Zea mays

<400> 91

gtgctcgtct caccgaggtc cgcaagaacg gaacctgccc ctggctcagg cctgatggga 60

agacccaggt gacagtcgag taccgcaatg agggtggtgc catggtcccc atccgtgtcc 120

acaccgtcct catctccacc cagcacgacg agacagtgac caatgatgag atcgctgctg 180

acctgaagga gcatgtcatc aagcctgtca tccctgagca gtaccttgac gagaagacca 240

tcttccacct taacccatct ggccgctttg tcattggtgg acctcacggc g 291

<210> 92
<211> 285
<212> nucleic acid
<213> Zea mays

<400> 92

gccagcggcc tcgcccgccg ctgcctcgtg caggtgtcct acgccatcgg cgtgccggag 60

cccctgtccg tgttcgtcga ctcctacggc accgggacca tccccgacaa ggagatccta 120

aagatcgtca aggagaactt cgacttcagg ccagggatga tcaccatcaa cctcgacctc 180

aagaagggcg gcaacaggtt catcaagacc gccgcatacg gccactttgg ccgtgacgac 240

gccgacttca cctgggaggt ggtcaagccc ctaaagaagg catcc 285

<210> 93
<211> 283
<212> nucleic acid
<213> Zea mays

<400> 93

ggccacttca ccaagcgccc cgaggagatt ggagctggtg accagggaca catgttcggg 60

tatgcgaccg atgagacccc tgagttgatg cccctcagcc atgtccttgc caccaagcta 120

ggtgctcgtc tcaccgaggt ccgcaagaac ggaacctgcc cctggctcag gcctgatggg 180

aagacccagg tgacagtcga gtaccgcaat gagggtggtg ccatggtccc catccgtgtc 240

cacaccgtcc tcatctccac ccagcacgac gagacagtga cca 283

<210> 94
<211> 298
<212> nucleic acid
<213> Zea mays

<400> 94

actacgagaa gattgtcagg gagacatgcc gcaacattgg tttcgtgtcg aacgatgtcg 60

ggcttgacgc tgaccactgc aaggtgcttg tgaacattga gcagcagtcc cctgatattg 120

ctcagggtgt gcacggccac ttcaccaagc gccccgagga gattggagct ggtgaccagg 180

ggcacatgtt tgggtatgcn actgacgaga cccctgagct gatgcccctc agccatgtcc 240

ttgccaccaa gcttggtgtc gtctcacnga aggttcgcaa gaatggaacc tgccccnt 298

<210> 95
<211> 469
<212> nucleic acid
<213> Zea mays

<400> 95

cttctccctc ttgccggtcc cgaataaaga gcagcagcgc aagaggtcgg tagagcgaga 60

agaaggcaat ggcggccgag agcttccttt tcacctcgga gtccgtgaac gaggggcacc 120

ccgacaagct gtgcnaccag gtgtcggacg ccgtgcttga cncatgcctc gcgcaggacc 180

ccnacagcaa ggtggcctgc nagacctgca ccaanaccaa catggtgatg gtgttcggcg 240

agatcacgac caangcgacc gtggactacg agaagatcgt gcgccgacac ctgccgcgag 300

atcgggttca ccttcgncga cgtgngccct tgactccnnc ccggtgcaag gtgctggtga 360

acattnatca tcaatncccc gacattnntc aaggcnttca cggcacttta cgaaacggcc 420

cnangagatc ggccgggcca acagngccac atnttcgggt ccccccccca 469

<210> 96
<211> 293
<212> nucleic acid
<213> Zea mays

<400> 96

aacgatgttg ggcttgacgc cgaccactgc aaggtgctcg tgaacattga gcagcagtcc 60

cctgattgct cagggtgtgc atggccactt caccaagcgc cccgaggaga ttggagctgg 120

tgaccaggga cacatgttcg ggtatgcnac cgatgagacc cctgagttga tgcccctcag 180

ccatgtcctt gccaccaagc taggtgctcg tctcaccgag gtccgcaaga acggaacctg 240

cccctggctc aggcctgatg ggaagaccca ggtgacagtc gagtaccgca aaa 293

<210> 97
<211> 280
<212> nucleic acid
<213> Zea mays

<400> 97

cggnacgntg gcgtgaacga ggggcaccca gacaagctgt gcgaccaggt gtcggacgcg 60

gtgctggacg cctgcctggc gcagganccc gacagcaagg tggcctgcga gacctgcacc 120

aagacgaaca tggtgatggt gttcggcgag atcaccacca aggcgagcgt ggactacgag 180

aagatcgtgc gcgacacctg ccgcgagatc gggttcacct ccgacgacgt ggggctcgac 240

gccgaccgct gcaaggtgct ggtgaacatc gagcagcagt 280

<210> 98
<211> 285
<212> nucleic acid
<213> Zea mays

<400> 98

catggtggtg gcgctttctc cggcaaggac ccaaccaagg ttgaccgcag cggagcctat 60

gtcgcgaggc aggctgccaa gagcatcgtc gccagcggcc ttgctcgccg cgccatcgtc 120

caggtgtctt acgccatcgg cgtgcccgag cctctctccg tgttcgtcga cacgtacggc 180

accggcgcga tccccgacaa ggagatcctc aagattgtca aggagaactt cgatttcagg 240

cctggcatga tcatcatcaa ccttgacctc aagaaaggcg gcaag 285

<210> 99
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 99

aggtgacagt cgagtaccgc aatgagggtg gtgccatggt ccccatncgt gtccacaccg 60

tcctcatctc cacccagcac gacgagacag tgaccaatga tgagatcgct gctgacctga 120

aggagcatgt catcaagcct gtcatncctg agcagtacct tgacgagaag accatcttcc 180

accttaaccc atctggccgc tttgtcattg gtggacctca cggcgatgct ggcctcactg 240

gccgcaagat catcattgac acctacggtg gctgggga 278

<210> 100
<211> 275
<212> nucleic acid
<213> Zea mays

<400> 100

gtgaccaatg atgagatcgc tgctgacctg aaggagcatg tcatcaagcc tgtcatccct 60

gagcagtacc ttgacgagaa gaccatcttc caccttaacc catctggccg ctttgtcatt 120

ggtggacctc acggcgatgc tggcctcact ggccgcaaga tcatcattga cacctacggt 180

ggctggggag cccatggtgg tggcgctttc tccggcaagg acccaaccaa ggttgaccgc 240

agcggancct atgtcgcaag gcaggctgcc aagag 275

<210> 101
<211> 291
<212> nucleic acid
<213> Zea mays

<400> 101

gatcgctgct gacctgaagg agcatgtcat caagcctgtc atccctgagc agtaccttga 60

cgagaagacc atcttccacc ttaacccatc tggccgcttt gtcattggtg gacctcacgg 120

cgatgctggc ctcactggcc gcaagatcat cattgacacc tacggtggct ggggagccca 180

tggtggtggc gctttctccg gcaaggaccc aaccaaggtt gaccgcagcg gagcctatgt 240

cgcaaggcag gctgccaaga gcatcgtcgc cagcggcttg ctcgccgcgc c 291

<210> 102
<211> 301
<212> nucleic acid
<213> Zea mays

<400> 102

agaagatggc cggactcgac accttcctct tcacctcgga gtccgtgaac gagggacacc 60

ctgacaagct ctgcgaccag gtctcagatg ctgttctgga cgcttgcctg ctgaggaccc 120

tgacagcaag gttgcttgcg agacctgcac caagaccaac atggtcatgg tctttggtga 180

gatcaccacc aaggccaatg tcgactacga gaagattgtc agggagacat gccgcaacat 240

tggtttcgtg tcgaacgatg tcgggcttga cgctgaccac tgcaagtgct tgtgaacatt 300

g 301

<210> 103
<211> 336
<212> nucleic acid

<213> Zea mays

<400> 103

ctccctcttg ccggtcccga ataaagagca gcagcgcaag aggtcggtag agcgagaaga 60

aggcaatggc ggccgagagc ttccttttna cctcggagtc cgtgaaacga ggggcncccc 120

gacaagctgt gcgaccaggt gtcggacgcc gtgcttgacg catgcctcgc gcaggacccc 180

gacagcaagg tggcctgcga gacctgcacc aagaccaaca tggtgatggt gttcggcgag 240

atcacgacca aggcgaccgt ggactacgag aagatcgtgc gcgacacctg ccgcgagatc 300

gggttcacct ccgacgacgt gggcctcgac gccgac 336

<210> 104
<211> 276
<212> nucleic acid
<213> Zea mays

<400> 104

tgagaagtac ctcgacgaga agaccatctt ccacctcaac ccgtccgggc gcttcgtcat 60

cggcgggccc cacggtgacg ccggcctcac cggccgcaag atcatcatcg acacgtacgg 120

cggctgggga gcccacggcg gtggcgcctt ctccggcaag gaccccacca aggtggaccg 180

cagcggcgcc tacgtggcca ggcaggccgc caagagcatc gtggccagcg gctcgcccgc 240

cgctgcctcg tgcagtgtcg tacgccatcg ctgccg 276

<210> 105
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 105

gagattggag ctggtgacca gggacacatg ttcgggtatg cgaccgatga gacccctgag 60

ttgatgcccc tcagccatgt ccttgccacc aagctaggtg ctcgtctcac cgaggtccgc 120

aagaacggaa cctgcccctg gctcaggcct gatgggaaga cccaggtgac agtcgagtac 180

cgcaatgagg gtggtgccat ggtccccatc cgtgtccaca ccgtcctcat ctccacccag 240

cacgacgaga cagtgaccaa tgatgagatc gtgctgacct gaaggag 287

<210> 106

<211> 303
<212> nucleic acid
<213> Zea mays

<400> 106

accgtcctca tctccaccca gcacgacgag acagtgacca atgatgagat cgctgctgac 60

ctgaaggagc atgtcatcaa gcctgtcatc cctgagcagt accttgacga gaagaccatc 120

ttccacctta acccatctgg ccgctttgtc attggtggac ctcacggcga tgctggcctc 180

actggccgca agatcatcat tgacacctac ggtggctggg gagcccatgg tggtggcgct 240

ttctccggca aggacccaac caagttgacc gcagcgganc tatgtcgcaa ggcagctgcc 300

aag 303

<210> 107
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 107

gtgaccaggt ctcagatgcc gttcttgacg cttgccttgc tgaggaccct gacagcaagg 60

ttgcttgtga gacctgcacc aagaccaaca tggtcatggt ctttggtgag atcaccacca 120

aggccaatgt tgactacgag aagattgtna gggagacctg ccgcaacatt ggttttgtgt 180

caaacgatgt tgggcttgac gccgaccact gcaaggtgct cgtgaacatt gagcagcagt 240

cccctgatat tgctcagggt gtgcatggcc acttcacca 279

<210> 108
<211> 330
<212> nucleic acid
<213> Zea mays

<400> 108

ctcttctccc tcttgccggt cccgaataaa gagcagcagc gcaagaggtc ggtagagcga 60

gaagaaggca atggcggccg agagcttcct tttcacctcg gagtccgtga acgaggggca 120

ccccgacaag ctgtgcgacc aggtgtcgga cgccgtgctt gacgcatgcc tcgcgcagga 180

ccccgacagc aaggtggcct gcgagacctg caccaagacc aacatggtga tggtgttcgg 240

cgagatcacg accaaggcga ccgtggacta cgagaagatc gtgcgcgaca cctgccgcga 300

gatcgggttc acctccgacg acgtgggcct 330

<210> 109
<211> 298
<212> nucleic acid
<213> Zea mays

<400> 109

ccgacggcaa gacccaggtg acggtggagt acgtgaacna nggcggcgcc atggtgcccg 60

tccgcntgca caccgtgctc atctccaccc agcacgacga gaccgtcacc aangacgagn 120

tcgccgccgn cctcanggag cacgtcntna agcccgtcat cccgganagg tacctggacg 180

anaagaccnt cttncacctc aacccgtcgg gggcgnttcg tcntcggcgg gccccacggg 240

gacnccggcc tnaccggccg caagntgntc ntngncacct acngcggntg gggagccc 298

<210> 110
<211> 498
<212> nucleic acid
<213> Zea mays

<400> 110

cccctctttn gcctatccgg gccgacccac gcgncacgcg gnggctcngn gcgtatcgag 60

cccacggatt ttggcntctn ctccggcaag gaccccaccn nggtgggggn gnattgggnc 120

ctaccgtcgc caggcangcc gacaagagca tngnggccag cggcctcgcn cgccgntgcc 180

tcgngcaggt gtcctacgcc atcggcgtgc cggagcccct gtccgtgttc gtngactcct 240

acggcaccgg gaccatcccc gacaaggaga tcctaaagat cgtnaaggag aacttcgact 300

tcaggccagg gatggtcacc atcaacctcg acctcaagaa gggcggcaac aggttcatca 360

agaccgccgn atacggccac tttggcccgt gacgacgccg acttcacctg ggaggtggtc 420

aagcccctaa agaaggcatc cgcttaagaa tgtattgnga aagttcactg gacatgaagg 480

atcatcttcc tctnggct 498

<210> 111
<211> 284
<212> nucleic acid
<213> Zea mays

<400> 111

gcccgcagat caaagaagat ggcagctgtc gacacattcc tcttcacctc ggagtctgtg 60

aacgagggac accctgacaa gctctgtgac caggtctcag atgccgttct tgacgcttgc 120

cttgctgagg accctgacag caaggttgct tgtgagacct gcaccaagac caacatggtc 180

atggtctttg gtgagatcac caccaaggcc aatgttgact acgagaagat tgtcagggag 240

acctgccgca acattggttt tgtgtcaaac gatgttgggc ttga 284

<210> 112
<211> 328
<212> nucleic acid
<213> Zea mays

<400> 112

ggcgagatca cgaccaaggc gaccgtggac tacgagaaga tcgtgcgcga cacctgccgc 60

gagatcgggt tcacctccga cgacgtgggc ctcgacgccg accgctgcaa ggtgctggtg 120

aacatcgagc agcagtcccc cgacatcgcg cagggcgtgc acgggcactt cacgaagcgg 180

cccgaggaga tcggcgcggg nnaccagggc cacatgttcg ggtacgccac cgacgagacc 240

cccgagctga tgccgctgag ccaacgtgct ggccaacaag ctgggcgcgg ggctcaccga 300

ngtgcgaaaa acggcaactg cgctggct 328

<210> 113
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 113

gggggcgcct tctccggcaa ggacccgacc aaggtggacc gcagcggggc ctacgtcgcg 60

aggcaggctg ccaagagcat cgtcgccgcc ggcctcgccc gccgcgccat tgtccaggtc 120

tcctacgcca tcggcgtgcc cgagcccctt tcggtgttcg tggacacgta cggcaccggc 180

gccatccccg acaaggagat cctgaagatc gtgaaggaga acttcgactt caggcccggc 240

atgatcatca tcaacctcga cctcaagaaa ggcggcaacg ggcgcta 287

<210> 114
<211> 261
<212> nucleic acid
<213> Zea mays

<400> 114

cgacgccgaa ccgctgcaag gtgctggtga acatcgagca gcagtccccc gacatcgcgc 60

agggcgtgca cgggcacttc acgaagcggc ccgaggagat cggcgcgggc gaccagggcc 120

acatgttcgg gtacgccacc gacgagaccc ccgagctgat gccgctgagc cacgtgctgg 180

ccaccaagct gggcgcgcgc ctcaccgagg tgcgcaagaa cggcacctgc gcctggctga 240

ggcccgacgg caagacccag g 261

<210> 115
<211> 294
<212> nucleic acid
<213> Zea mays

<400> 115

gggccacttc accaagcgcc ccgaggagat tggagctggt gaccagggac acatgttcgg 60

gtatgcgacc gatgagaccc ctgagttgat gcccctcagc catgtccttg ccaccaagct 120

aggtgctcgt ctcaccgagg tccgcaagaa cggaanctgc ccctggctca ggcctgatgg 180

gaagacccag gtgacagtcg agtaccgcaa tgagggtggt gccatggtcc ccatccgtgt 240

ccacaccgtc ctcatctcca cccagcacga cgagacatga ccaatgatga gatc 294

<210> 116
<211> 318
<212> nucleic acid
<213> Zea mays

<400> 116

ctgaaggagc acgtcatcaa gccagtcatc cccgagcagt acctcgacga gaagacaatc 60

ttccacctca acccgtctgg ncgcttcgtc atcggcggac ctcacggcga cgccggcctc 120

actggccgga agatcatcat cgacacctac ggtggctggg gagcccacgg cgggggcgcc 180

ttctccggca aggacccgac caangtggac cgcagcgggg cctacgtcgc gangcaggct 240

gccaagagca tcgtcgccgc cggcctcgcc gcngcgccat cgtccaggtc tctagcatgg 300

gtgccgancc tatcgtgt 318

<210> 117
<211> 256
<212> nucleic acid

<213> Zea mays

<400> 117

gagaagtacc tcgacgagaa gaccatcttc cacctcaacc cgtccgggcg cttcgtcatc 60

ggcgggcccc acggtgacgc cggcctcacc ggccgcaaga tcatcatcga cacgtacggc 120

ggctggggag cccacggcgg tggcgccttc tccggcaagg accccaccaa ggtggaccgc 180

agcggcgcct acgtggccag gcaggccgcc aagagcatcg tggccagcgg cttcgcccgc 240

cgctgccttc tgcaag 256

<210> 118
<211> 275
<212> nucleic acid
<213> Zea mays

<400> 118

gtcgacacat tcctcttcac ctcggagtct gtgaacgagg gacaccctga caagctctgt 60

gaccaggtct cagatgccgt tcttgacgct tgccttgctg aggaccctga cagcaaggtt 120

gcttgtgaga cctgcaccaa gaccaacatg gtcatggtct ttggtgagat caccaccaag 180

gncnatgttg actacgagaa gattgtcagg gagacctgcc gcaacattgg ttttgtgtca 240

aacgatgttg ggcttgacgc cgaccactgc aaggt 275

<210> 119
<211> 276
<212> nucleic acid
<213> Zea mays

<400> 119

gtcgacacat tcctcttcac ctcggagtct gtgaacgagg gacaccctga caagctctgt 60

gaccaggtct cagatgccgt tcttgacgct tgccttgctg aggaccctga cagcaaggtt 120

gcttgtgaga cctgcaccaa gaccaacatg gtcatggtct ttggtgagat caccaccaag 180

gccattgttg actacgagaa gattgtcagg gagacctgcc gcaacattgg ttttgtgtca 240

aacgatgttg ggcntgacgc cgaccactgc aaggtg 276

<210> 120
<211> 309
<212> nucleic acid

<213> Zea mays

<400> 120

cggcacggtg gtcgcagcat cgctgctgac ctgaaggagc atgtcatcaa gcctgtnatc 60

cctgagcagt accttgacga gaagaccatn ttccacctta acccatctgg ccgctttgtc 120

attggtggac ctcacggcga tgctggcctc actggccgca agatcatcat tgacacctac 180

ggtggctggg gagcccatgg tggtggcgct ttctccggca aggacccaac caaggttgac 240

cgcagcggag cctatgtcgc aangcangct gccaagagca tcgtcgccaa cggcttgctc 300

gccgcgcca 309

<210> 121
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 121

ctcagggtgt gcatggccac ttcaccaagc gccccgagga gattggagct ggtgaccagg 60

gacacatgtt cgggtatgcg accgatgaga cccctgagtt gatgcccctc agccatgtcc 120

ttgccaccaa gctaggtgct cgtctcaccg aggtccgcaa gaacggaacc tgcccctggc 180

tcaggcctga tgggaagacc caggtgacag tcgagtaccg caatgagggt ggtgccatgg 240

tccccatccg tgtccacacc gtcctca 267

<210> 122
<211> 277
<212> nucleic acid
<213> Zea mays

<400> 122

gcaaggtgct tgtgaacatt gagcagcagt cccctgatat tgctcagggt gtgcacggcc 60

acttcaccaa gcgccccgag gagattggag ctggtgacca ggggcacatg tttgggtatg 120

cgactgacga gacccctgag ctgatgcccc tcagccatgt ccttgccacc aagcttggtg 180

ctcgtctcac ggaggttcgc aagaatggaa cctgcccctg gctcaggccc gatgggaaga 240

cccagtgaca attggantac cgcaacgagg gtggccc 277

<210> 123

<211> 264
<212> nucleic acid
<213> Zea mays

<400> 123

gccacatgtt cgggtacgcc accgacgaga cccccgagct gatgccgctg agccacgtgc 60

tggccaccaa gctgggcgcg cgcctcaccg aggtgcgcaa gaacggcacc tgcgcctggc 120

tgaggcccga cggcaagacc caggtgacgg tggagtacgt gaacgagggc ggcgccatgg 180

tgcccgtccg cgtgcacacc gtgctcatct ccacccagca cgacgagacc gtcaccaacg 240

acgagatcgc ccgccgacct caag 264

<210> 124
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 124

gaagattgtc agggagacct gccgcaacat tggttttgtg tcaaacgatg ttgggcttga 60

cgccgaccac tgcaaggtgc tcgtgaacat tgagcagcag tcccctgata ttgctcaggg 120

tgtgcatggc cacttcacca agcgccccga ggagattgga gctggtgacc agggacacat 180

gttcgggtat gcgaccgatg agacccctga gttgatgccc ctcagccatg tccttgccac 240

caagctaggt gctcgtctca ccgaggtcc 269

<210> 125
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 125

atgccgctga gccacgtgct ggccaccaag ctgggcgcgc gnctcaccga ggtgcgcaag 60

aacggcacct gcgcctggct gaggcccgac ggcaagaccc aggtgacggt ggagtacgtg 120

nacgagggcg gcgccatggt gcccgtccgc gtgcacaccg tgctcatctc cacncancan 180

gnngngntng tcaccaacna cgagatcgcc gccgacctca aggagcacgt catcaagccc 240

gtgatccctg agaagtacct cgacgagaag acca 274

<210> 126

<211> 260
<212> nucleic acid
<213> Zea mays

<400> 126

ggaccctgac agcaaggttg cttgcgagac ctgcaccaag accaacatgg tcatggnctt 60

tggtgagatc accaccaagg ccaatgtcga ctacgagaag attgtcaggg agacatgccg 120

caacattggt ttcgtgtcga acgatgtcgg gcttgacgct gaccactgca aggtgcttgt 180

gaacattgag cagcagtccc ctgatattgc tcagggtgtg cacggccact tcaccaagcg 240

ccccgaggag attggagctg 260

<210> 127
<211> 516
<212> nucleic acid
<213> Zea mays

<400> 127

gnnnaaagga gatttgatan gntttntggg gaggnanagn tnatgccgta ccggtccgga 60

attcccgggt cgacccacgc gtccggagaa gaccatcttc cacctcaacc cgtccgggcg 120

cttcgtcatc ggcgggcccc agggtgacgc cggcctcacc ggccgcaaga tcatcatcga 180

cacgtacggc ggctggggag cccacggcgg tggcgccttc tccggcaagg accctaccaa 240

ggtggaccgc agcggcgcct acgtggccag gcaggccgnt cangagcatc gtggccagcg 300

gcctcncccg ccgctgnctc gtgcaggtgt cgtacgcnat cggcgtgcac ggagcccntg 360

tatcgtattc gtaactcgta cggaacnggn acgatncnng anaaggatat actanangat 420

agtgaaggag aantnntnct tnatgcnnnn gttgatnagg atnnaanntn nannngnnna 480

angttnnnnn nnggnnnatt nnnnantntn nnnnta 516

<210> 128
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 128

ggagcatgtc atcaagcctg tcatccctga gcagtacctt gacgagaaga ccatcttcca 60

ccttaaccca tctggccgct ttgtcattgg tggacctcac ggcgatgctg gcctcactgg 120

ccgcaagatc atcattgaca cctacggtgg ctggggagcc catggtggtg gcgctttctc 180

cggcaaggac ccaaccaagg ttgaccgcag cggagcctat gtcgcaangc aggctgccaa 240

gagcatcgtc gccagcggcc ttgc 264

<210> 129
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 129

caagaatgga acctgcccct ggctcaggcc cgatgggaag acccaggtga cagtggagta 60

ccgcaacgag ggtggcgcca tggttcccat ccgtgtgcac acagtcctca tctctaccca 120

gcacgacgag acagtcacca acgacgagat tgctgctgac ctgaaggagc acgtcatcaa 180

gccagtcatc cccgagcagt acctcgacga gaagacaatc ttccacctca acccgtctgg 240

ccgcttcgtc atcggcggac ctcacggcga 270

<210> 130
<211> 249
<212> nucleic acid
<213> Zea mays

<400> 130

cacgtcatca agcccgtgat ccctgagaag tacctcgacg agaagaccat cttccacctc 60

aacccgtccg ggcgcttcgt catcggcggg ccccacggtg acgccggcct caccggccgc 120

aagatcatca tcgacacgta cggcggctgg ggagcccacg gcggtggcgc cttctccggc 180

aaggacccca ccaaggtgga ccgcagcggc gcctacgtgg ccaggcaggc cgccaagagc 240

atcgtggcc 249

<210> 131
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 131

gtcatcaagc ctgtcatccc tgagcagtac cttgacgaga agaccatctt ccaccttaac 60

ccatctggcc gctttgttat tggtggacct cacggcgatg ctggcctcac tggccgcaag 120

atcatcattg acacctacgg tggctgggga gcccatggtg gtggcgcttt ctccggcaag 180

gacccaacca aggttgaccg cagcggagcc tatgtcgcaa ggcaggctgc caagagcatc 240

gtcgccagcg gccttgctcg ccgcgccatc 270

<210> 132
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 132

ctgcancaag accaacatgg tcatggtctt tggtgagatc accaccaagg ccaatgttga 60

ctacgagaag attgtcaggg agacctgccg caacattggt tttgtgtcaa acgatgttgg 120

gcttgacgcc gaccactgca aggtgctcgt gaacattgag cagcagtccc ctgatattgc 180

tcagggtgtg canggccact tcaccaagcg ccccgaggag attggagctg gtgaccaggg 240

acacatgttc gggtatgcga ccgat 265

<210> 133
<211> 284
<212> nucleic acid
<213> Zea mays

<400> 133

accggccgca agatcatcat cgacacgtac ggcggctggg gagcccacgg cggggngcct 60

tctccggcaa ggaccccacc aaggtggacc ncagcggcgc ctacgtggcc aggcaggccg 120

ccaagagcat cgtngccagc ngcctcgccc gccgctgcct cgtgcaggtg tcgtacgcca 180

tcggntgccg gagcncctgt ccgtgttcgt caactcgtac ggcaccggca cgatccccga 240

caaggagatc ctcaagatcg tgaaggagna ttcgattcag gccg 284

<210> 134
<211> 429
<212> nucleic acid
<213> Zea mays

<400> 134

gggagacatg ccgcaacatt ggtttcgtgt cgaacgatgt cgggcttgac gctgaccact 60

gcaaggtgct tgtgaacatt gagcagcagt cccctgatat tgctcagggt gtgcacggcc 120

acttaccaag cgccccgagg agattggagc tggtgaccag gggcacatgt ttgggtatgc 180

gactgacgag acccctgagc tgatgcccct cagccatgtn cttgccacca agcttggtgc 240

tcgtctnaca aangntcgca agaaatggaa cctggcccct ggcttaagcc cgatnggnaa 300

gacccaagtg acaagtggaa tanccgnaac caagggtggc nccatgggtt cccattcgtg 360

tgcacacaag tccttaattt ttacccaaca ccgaccaagg ccagttancc aacgaccagg 420

anttggcnt 429

<210> 135
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 135

atcggcgggc cccacggtga cgccggcctc accggccgca agatcatcat cgacacgtac 60

ggcggctggg gagcccacgg cggtggcgcn ttctccggca aggaccccac caaggtggac 120

cgcagcggcg cntacgtggc caggcaggcc gccaagagca tcgtngccag cngctcgcnc 180

gccgntgcnt ngtgcaggtg tcgtacgcca tcggctgccg gagcccctgt ccgtgttngt 240

caactcgtac ggcngcggca cgntccccga caaggagntc tc 282

<210> 136
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 136

gtgatggtgt tcggcgagat cacgaccaag gcgaccgtgg actacgagaa gatcgtgcgc 60

gacacctgcc gcgagatcgg gttcacctcc gacgacgtgg gcctcgacgc cgaccgctgc 120

aaggtgctgg tgaacatcga gcagcagtcc cccgacatcg cgcagggcgt gcacgggcat 180

tcacgaagcg gcccgaggag atcggcgcgg gcgaccaggg ccacatgttc gggtacgcca 240

ccgacgagac ccccgagtga tgccgtnagc natgtgngc 279

<210> 137
<211> 283
<212> nucleic acid
<213> Zea mays

<400> 137

ctgagaagta cctcgacgag aagaccatct tccacctcaa cccgtccggg cgcttcgtca 60

ttggcggggc ccaaggtgaa ggcgggctta acgggcggaa anntnntcat cganacgnan 120

ggcggttggg gagcccacgg cggtggcgcn ttctccggca aggaccccac caaggtggac 180

cgcagcggcg cctacgtggc caggcaggcc gccaagagca tcgtggccag cggcttcgcc 240

cgcngctgcc tcgtgcaggt gtcgtacgcc atcgggtgcc gga 283

<210> 138
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 138

cggacntggn gaaaggagca cgtcatcaag ccagtcatcc ccgagcagta cctcgacgag 60

annntcaatc ttccacctca acccgtctgg ccgcttcgtc atcggcggac ctcacggcga 120

cgctggcctc actggccgga agatcatcat cgacacctac ggtggctggg gagcccacgg 180

cgggggcgcc ttctccggca aggacccgac caaggtggac cgcagcgggg cctacgtcgc 240

gaggcaggct gccaagagca tcgtcgccgc ggcctcgccc gccgcgcatt gtccagt 297

<210> 139
<211> 317
<212> nucleic acid
<213> Zea mays

<400> 139

ctccctcttg ccggtcccga ataaagagca gcagcgcaag aggtcggtag agcgagaaga 60

aggcaatggc ggccgagagc ttccttttca cctcggagtc cgtgaacgag gggcacccga 120

caagctgtgc gaccaggtgt cggacgccgt gcttgacgca tgcctcgcgc aggaccccga 180

cagcaaggtg gcctgcgaga cctgcaccaa gaccaacatg gtgatggtgt tcggcgagat 240

cacgaccaag gcgaccgtgg actacgagaa gatcgtgcgc gacacctgcc gcgagatcgg 300

gttcacctcc gacgacg 317

<210> 140
<211> 277
<212> nucleic acid

<213> Zea mays

<400> 140

cgctgcctcg tgcaggtgtc gtacgccatc ggcgtggccg gagcccctgt ccgtgttcgt 60

caactcgtac ggcaccggca cgatccccga caaggagatc ctcaagatcg tgaaggagaa 120

cttcgacttc aggcccggga tgatcagcat caacctcgac ctgaagaagg gcggcaacag 180

gttcatcaag accgccgcct acggccactt cggccgtgac gacgccgact tcacctggga 240

ggtggtgaag cccctcaagt tcgacaaggc atcgctt 277

<210> 141
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 141

ccgagcctct ctccgtgttc gtcgacacgt acggcaccgg cgcgatcccc gacaaggaga 60

tcctcaagat tgtcaaggag aacttcgatt tcaggcctgg catgatcatc atcaaccttg 120

acctcaagaa aggcggcaac gggcgctacc tcaagacggc ggcctacggc cactttggaa 180

gggacgaccc tgacttcacc tgggaggtgg tgaagccact caagtcggag aaaccttctg 240

cctaaggcgg cctttttttc agtaagaagc ttttggtgg 279

<210> 142
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 142

caaggttgac cgcagcggag cctatgtcgc aaggcaggct gccaagagca tcgtcgccag 60

cngccttgct cgccgcgcca tcgtccaggt gtcttacgcc atcggcgtgc ccgagcctct 120

ctccgtgttc gtcgacacgt acggcaccgg cgcgatcccc gacaaggaga tcctcaagat 180

tgtcaaggag aacttcgatt tcaggcctgg catgatcatc atcaaccttg acctcaagaa 240

aggcggcaac gggcgctacc tca 263

<210> 143
<211> 287
<212> nucleic acid

<213> Zea mays

<400> 143

cgtcatcaag ccagtcatcc ccgagcagta cctcgacgag aagacaatct tccacctcaa 60

cccgtctggc cgtttcgtca tcggcggacc tcacggcgac gccggcctca ctggccggaa 120

gatcatcatc gacacctacg gtggctgggg agcccacggc gggggcgcct tctccggcaa 180

ggacccgacc aaggtggacc gcagcggggc ctacgtcgcg aggcaggctg ccaagagcat 240

cgtcgccgcc ggccttcgcc cgcngcgcca tcgtccaggt ctctaag 287

<210> 144
<211> 280
<212> nucleic acid
<213> Zea mays

<400> 144

ggccacttca ccaagcgccc cgaggagatt ggagctgntg accagggaca catgttcggg 60

tatgcgaccg atgagacccc tgagttgatg cccctcagcc atgtccttgc caccaagcta 120

ggtgctcgtc tcaccgaggt ccgcaagaac ggaacctgcc cctggctcag gcctgatggg 180

aagacccagg tgacagtcga gtaccgcaat gagggtggtg ccatggtccc catccgtgtc 240

cacaccgtcc tcatctccac ccgcacgacg agacagtgac 280

<210> 145
<211> 251
<212> nucleic acid
<213> Zea mays

<400> 145

ttcacctccg acgacgtggg cctcgacgcc gaccgctgca aggtgctggt gaacatcgag 60

cagcagtccc ccgacatcgc gcagggcgtg cacgggcact tcacgaagcg gcccgaggag 120

atcggcgcgg gcgaccaggg ccacatgttc gggtacgcca ccgacgagac ccccgagctg 180

atgccgctga gccacgtgct ggccaccaag ctgggcgcgc gcctcaccga ggtgcgcaag 240

aacggcactg g 251

<210> 146
<211> 270
<212> nucleic acid

<213> Zea mays

<400> 146

atggtcccca tccgtgtcca caccgtcctc atctccaccc agcacgacga gacagtgacc 60

aatgatgaga tcgctgctga cctgaaggag catgtcatca agcctgtcat ccctgagcag 120

taccttgacg agaagaccat cttccacctt aacccatctg gccgctttgt cattggtgga 180

cctcacggcg atgctggcct cactggccgc aagatcatca ttgacaccta cggtggctgg 240

ggagcccatg gtggtggcgt ttctccggca 270

<210> 147
<211> 310
<212> nucleic acid
<213> Zea mays

<400> 147

agacctgccg caacattggt tttgtgtcaa acgatgttgg gcttgacgcc gaccactgca 60

aggtgctcgt gaacattgag cagcagtccc ctgatattgc tcagggtgtg catggccact 120

tcaccaagcg ccccgaggag attggagctg gtgaccaggg acacatgttc gggtatgcga 180

ccgatgagac ccctgagttg atgcccctca gccatgtcct tgccaccaag ctaggtgctc 240

gtctcaccga ggtccgcaag aacggaactg cccctggctc agcctgatgg gaagaccagt 300

gacagtcgag 310

<210> 148
<211> 292
<212> nucleic acid
<213> Zea mays

<400> 148

ccaggtctcc tacgccatcg gcgtgcccga gccccttcg gtgttcgtgg acacgtacgg 60

caccggcgcg atccccgaca aggagatcct gaagatcgtg aaggagaact tcgacttcag 120

gcccggcatg atcatcatca acctcgacct caagaaaggc ggcaacgggc gctacctcaa 180

gacggcggcc tacgggcact ttgggaggga cgaccccgac ttcacctggg aggtggtgaa 240

gcccctcaag gcggagaagc cgtcttctgc atgaggcgcc tcctctgttt ng 292

<210> 149

<211> 279
<212> nucleic acid
<213> Zea mays

<400> 149

aggtgacagt cgagtaccgc aatgagggtg gtgccatggt ccccatgcgt gtccacaccg 60

tcctcatact ccacccagca cgacgagaca gtgaccaatg atgagatcgc tgctgacctg 120

aaggagcatg tcatcaagcc tgtcatcctg agcagtacct tgacgagaag accatcttcc 180

accttaacnc atctggccgc tttgtcattg gtggacctca cggcgatgct ggcctcactg 240

gccgcaagat catcattgac acctacggtg gctggggag 279

<210> 150
<211> 322
<212> nucleic acid
<213> Zea mays

<400> 150

ctccctcttg ccggtcccga ataaagagca gcagcgcaag aggtcggtag agcgagaaga 60

aggcaatggc ggccgagagc ntccttttca cctcggagtc cgtgaacgag gggcaccccg 120

acaagctgtg cgaccaggtg tcggacgccg tgcttgacgc atgcctcgcg caggaccccg 180

acagcaaggt ggcctgcgag acctgcacca agaccaacat ggtgatggtg ttcggcgaga 240

tcacgaccaa ggcgaccgtg gacnacgaga agatcgtgcg cgacacctgc cgcgagatcg 300

ggttcactcc gacgacgtgg gc 322

<210> 151
<211> 283
<212> nucleic acid
<213> Zea mays

<400> 151

gaataaagag cagcagcgca agaggtcggt agagcgagaa gaaggcaatg gcggccgaga 60

gcttcctttt cacctcggag tccgtgaacg aggggcaccc cgacaagctg tgcgaccagg 120

tgtcggacgc cgtgcttgac gcatgcctcg cgcaggaccc cgacagcaag gtggcctgcg 180

agacctgcac caagaccaac atggtgatgg tgttcggcga gatcacgacc aaggcgaccg 240

tggactacga gaagatcgtg cgcgacacct gccgcgagat cgg 283

<210> 152
<211> 316
<212> nucleic acid
<213> Zea mays

<400> 152

cgtttgcctc ttctccctct tgccggtccc gaataaagag cagcagcgca agaggtcggt 60

agagcgagaa gaaggcaatg gcggccgaga gcttcctttt cacctcggag tccgtgaacg 120

aggggcaccc cgacaagctg tgcgaccagg tgtcggacgc cgtgcttgac gcatgcctcg 180

cgcaggaccc cgacagcaag gtggcctgcg agacctgcac caagaccaac atggtgatgg 240

tgttcggcga gatcacgacc aaggcgaccg tggactacga gaagatcgtg cgcgacacct 300

gccgcgagat cgggtt 316

<210> 153
<211> 277
<212> nucleic acid
<213> Zea mays

<400> 153

gcatggccac ttcaccaagc gccccgagga gattngagct ggtgaccagg gacacatgtt 60

ccgggtatgc gaccgatgag acccctgagt tgatgcccct cagccatgtc cttgccacca 120

agctaggtgc tcgtctcacc gaggtccgca agaacggaac ntgcccctgg ctcagggctg 180

atgggaagac ccaggtgaca gtcgagtacc gcaatgaggg tggtgccatg gtccccatcc 240

gtgtccacac cgtcctcatc tccacccagc acgacga 277

<210> 154
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 154

tgtcatcaag cctgtcatcc ctgagcagta ccttgacgag aagaccatct tccaccttaa 60

cccatctggc cgctttgtca ttggtggacc tcacggcgat gctggcctca ctggccgcaa 120

gatcatcatt gacacctacg gtggctgggg agcccatggt ggtggcgctt tctccggcaa 180

ggacccaacc aaggttgacc gcagcggacc tatgtcgcaa ggcaggctgc caagagcatc 240

gtcgccagcg gccttgctcg ccgcgccatc gt 272

<210> 155
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 155

ccctcttgcc ggtcccgaat aaagagcagc agcgcaagag gtcggtagag cgagaagaag 60

gcaatggcgg ccgagagctt ccttttcacc tcggagtccg tgaacgaggg gcaccccgac 120

aagctgtgcg accaggtgtc ggacnccgtg cttgacgcat gcctcgcgca ggaccccgac 180

agcaaggtgg cctgcgagac ctgcaccaag accaacatgg tgatggtgtt cggcgagatc 240

acgaccaagg cgaccgtgga ctacgagaag atcgtgcgcg acacctgccg cgagatc 297

<210> 156
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 156

gtcggtagag cgagaagaag gcaatggcgg ccgagagctt ccttttcacn tcggagtccg 60

tgaacgaggg gcaccccgac aagctgtgcg accaggtgtc ggacgccgtg cttgacgcat 120

gcctcgcgca ggaccccgac agcaaggtgg cctgcgagac ctgcaccaag accaacatgg 180

tgatggtgtt cggcgagatc acgaccaagg cgaccgtgga ctacgagaag atcgtgcgcg 240

acacctgccg cgagatcggg ttcacct 267

<210> 157
<211> 261
<212> nucleic acid
<213> Zea mays

<400> 157

aggagattgg agctggtgac caggggcaca tgtttgggta tgcgactgac gagacccctg 60

agctgatgcc cctcagccat gtccttgcca ccaagcttgg tgctcgtctc acggaggttc 120

gcaagaatgg aacctgcccc tggctcaggc ccgatgggaa gacccaggtg acagtggagt 180

accgcaacga gggtggcgcc atggttccca tccgtgtgca cacagtcntc atctctaccc 240

agcacgacga gacagtcacc a 261

<210> 158
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 158

gcccctcagc catgtccttg ccaccaagct aggtgctcgt ctcaccgagg tccgcaagaa 60

cggaacctgc ccctggctca ggcctgatgg gaagacccag gtgacagtcg agtaccgcaa 120

tgagggtggt gccatggtcc ccatccgtgt ccacaccgtc ctcatctcca cccagcacga 180

cgagacagtg accaatgatg agatcgctgc tgacctgaag gagcatgtca tcaagcctgt 240

catccctgag cagtacttga cgagaagaca ttttccactt aaacccat 288

<210> 159
<211> 311
<212> nucleic acid
<213> Zea mays

<400> 159

cttctccctc ttgccggtcc cgaataaaga gcagcagcgc aagaggtcgg tagagcgaga 60

agaaggcaat ggcggccgag agcttcnttt tcacntcgga gtccgtgaac gaggggcacc 120

ccgacaagct gtgcgaccag gtgtcggacg ccgtgcttga cgcatgcctc gcgcaggacc 180

ccgacagcaa ggtggcntgc gagacntgca ccaagaccaa cntggtgatg gtgttcggcg 240

agatcacgac caaggcgacc gtggactacg agaagatcgt gcgcgacacc tgccgcgaga 300

tcgggttcac t 311

<210> 160
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 160

cggacgctgg ngcggtggcg ccttctccgg caaggacccc accaaggtgg accgcagcgg 60

cgcctaacgt ggccaggcag gccgccaaga gcatcgtggc cagcggcctc gcccgccgct 120

gcctcgtgca ggtgtcgtac gccatcggct gccggagccc ctgtccgtgt tcgtcaactc 180

gtacggcacc ggcacgatcc ccgacaagga gatcctcaag atcgtgaagg agaacttcga 240

cttcaggccc gggatgatca gcatcaa 267

<210> 161
<211> 284
<212> nucleic acid
<213> Zea mays

<400> 161

agctgtcgac acattcctct tcacctcgga gtctgtgaac gagggacacc ctgacaagct 60

ctgtgaccag gtctcagatg ccgttcttga cgcttgcctt gctgaggacc ctgacagcaa 120

ggttgcttgt gagacctgca ccaagaccaa cattcancat ggtctttggt gagatcacca 180

ccaaggccaa tgttgactac gagaagattg tcagggagac ctgccgcaac attggttttg 240

tgtcaaacga tgttgggttg acgccgacca ctgcaaggtg ctcg 284

<210> 162
<211> 237
<212> nucleic acid
<213> Zea mays

<400> 162

ccatcttcca cctcaacccg tccgggcgct tcgtcatcgg cgggccccac ggtgacgccg 60

gcctcaccgg ccgcaagatc atcatcgaca cgtacggcgg ctggggagcc cacggcggtg 120

gcgccttctc cggcaaggac cccaccaagg tggaccgcag cggcgcctac gtggccaggc 180

aggccgccaa gagcatcgtg gccagcggcc tcgcccgccg ctgcctcntg naggttt 237

<210> 163
<211> 236
<212> nucleic acid
<213> Zea mays

<400> 163

acctgcgcct ggctgaggcc cgacggcaag acccaggtga cggtggagta cgtgaacgag 60

ggcggcgcca tggtgcccgt ccgcgtgcac accgtgctca tctccaccca gcacgacgag 120

accgtcacca acgacgagat cgccgccgac ctcaaggagc acgtcatcaa gcccgtgatc 180

cctgagaagt acctcgacga gaagaccatc ttccacctca acccgtccgg gcgctt 236

<210> 164
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 164

ggtggacctc acggcgatgc tggcctcact ggccgcaaga tcatcattga cacctacggt 60

ggctggggag cccatggtgg tggcgctttc tccggcaagg acccaaccaa ggttgaccgc 120

agcggagcct atgtcgcaag gcaggctgcc aagagcatcg tcgccagcgg ccttgctcgc 180

cgcgccatcg tccaggtgtc ttacgccatc ggntggcccg agcctctctc cgtgttcgtc 240

gacacgtacg gcaccggcgc gatccccgac aa 272

<210> 165
<211> 258
<212> nucleic acid
<213> Zea mays

<400> 165

ccaagctagg tgctcgtctc accgaggncc gcaagaacgg aacctgcccc tggctcaggc 60

ctgatgggaa gacccaggtg acagtcgagt accgcaatga gggtggtgcc atggtcccca 120

tccgtgtcca caccgtcctc atctccaccc agcacgacga gacagtgacc aatgatgaga 180

tcgctgctga cctgaaggag catgtcatca agcctgtcat ccctgagcag taccttgacg 240

agaagaccat cttccacc 258

<210> 166
<211> 298
<212> nucleic acid
<213> Zea mays

<400> 166

tctccctctt gccggtcccg aataaagagc agcagcgcaa gaggtcggta gagcgagaag 60

aaggcaatgg cggccgagag cttccttttc acctcggagt ccgtgaacga ggggcacccc 120

gacaagctgt gcgaccaggt gtcggacgcc gtgcttgacg catgcntcgc gcaggacccc 180

gacagcaagg tggcctgcga gacctgcacc aagaccaaca tggtgatggt gttcggcgag 240

atcacgacca aggcgaccgt ggactacgag aagatcgtgc gcgacacctg ccgcgaga 298

<210> 167
<211> 298
<212> nucleic acid
<213> Zea mays

<400> 167

cttctccctc ttgccggtcc cgaataaaga gcagcagcgc aagaggtcgg tagagcgaga 60

agaaggcaat ggcggccgag agcttccttt tcacctcgga gtccgtgaac gaggggcacc 120

ccgacaagct gtgcgaccag gtgtcggacg ccgtgcttga cgcatgcctc gcgcaggacc 180

ccgacagcaa ggtggcctgc gagacctgca ccaagaccaa catggtgatg gtgttcggcg 240

agatcacgac caaggcgacc gtggactacg agaagatcnt gcgcgacacc tgccgcga 298

<210> 168
<211> 265
<212> nucleic acid
<213> Zea mays

<400> 168

ccgaggtccg caagaacgga acctgcccct ggctcaggcc tgatgggaag acccaggtga 60

cagtcgagta ccgcaatgag ggtggtgcca tggtccccat ccgtgtccac accgtcctca 120

tctccaccca gcacgacgag acagtgacca atgatgagat cgctgctgac ctgaaggagc 180

atgtcatcaa gcctgtcatc cctgagcagt accttgacga gaagaccatc ttccacctta 240

acccatctgg ccgtttgtca ttggt 265

<210> 169
<211> 251
<212> nucleic acid
<213> Zea mays

<400> 169

cccgacaagc tgtgcgacca ggtgtcggac gccgtgcttg acgcatgcct cgcgcaggac 60

cccgacagca aggtggcctg cgagacctgc accaagacca acatggtgat ggtgttcggc 120

gagatcacga ccaaggcgac cgtggactac gagaagatcg tgcgcgacac ctgccgcgag 180

atcgggttca cctccgacga cgtgggcctc gacgccgacc gctgcaagga ngctggtgaa 240

catcgagcag c 251

<210> 170
<211> 305
<212> nucleic acid
<213> Zea mays

<400> 170

ctcttgccgg tcccgaataa agagcagcag cgcaagaggt cggtagagcg agaagaaggc 60

aatggcggcc gagancttcc ttttnanctc ggaatncgtg aacgaggggc ancccgacaa 120

gctgtgcgac caggtgtcgg acgccgtgct tgacgnatgc ctcgcgcagg accccgacag 180

caaggtggcc tgcgagacct gcaccaagac caacatggtg atggtgttcg gcgagatcac 240

gaccaaggcg accgtggact acgagaagat cgtgcgcnac acctgccgcg agatcgggtt 300

cactc 305

<210> 171
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 171

cntacggtgg ctggggagcc cacggcgggg gcgccttctc cggcaaggac ccgaccaagg 60

tggaccgcag cggggcctac gtcncgnggc aggctgccaa gagcatcgtc gccgccggcc 120

tcgcccgccg tgccatcgtc caggtctcct acnccatcgg cgtgcccgan cccctgtcgg 180

tgttcgtgga cacgtacggc accggcgcga tccccgacaa ggagatcctg aagatcgtga 240

aggagaactt cgacttcagg cccggca 267

<210> 172
<211> 250
<212> nucleic acid
<213> Zea mays

<400> 172

ccaatgatga gatcgctgct gacctgaagg agcatgtcat caagcctgtc atccctgagc 60

agtaccttga cgagaagacc atcttccacc ttaacccatc tggccgcttt gtcattggtg 120

gacctcacgg cgatgctggc ctcactggcc gcaagatcat cattgacacc tacggtggct 180

ggggagccca tggtggtggc gctttctccg gcaaggaccc aaccaaggtt gaccgcagcg 240

ganctatgtc 250

<210> 173
<211> 304
<212> nucleic acid
<213> Zea mays

<400> 173

ctcctccctc ctgccgggtc cttaataaag agcagcagcg caagangttg gtagancgag 60

cgagaagaag gcaatggcgg cggagagctt cctgttcacc tcggagtccg tgaacgaggg 120

gcacccagac aagctgtgcg accaggtgtc ggacgcggtg ctggacgcct gcctggcgca 180

ggaccccgac agcaaggtgg cctgcgagac ctgcaccaag acgaacatgg tgatggtgtt 240

cggcgagatc accaccaagg cgagcgtgga ctacgagaag atcgtgcgcg acacctgccg 300

cgag 304

<210> 174
<211> 328
<212> nucleic acid
<213> Zea mays

<400> 174

catccgtttg cctcttctcc ctcttgccgg tcccgaataa agagcagcag cgcaagaggt 60

cggtagagcg agaagaaggc aatggcggcc gagagcttcc ttttcacctc ggagtccgtg 120

aacgangggc accccgacaa gctgtgcgaa ccaggtgtcg gacgccgtgc ttgacgcatg 180

cctcgcgcag gaccccgaca gcaangtggc ctgcgagacc tgcaccaaga ccaacatggt 240

gatggtgttc ggcgagatca cgaccaaggc gaccgtggac tacgagaaga tcgtgcgcga 300

cacctgccgc gagatcgggt tcactccg 328

<210> 175
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 175

tctccctctt gccggtcccg aataaagagc agcagcgcaa gaggtcggta gagcgagaag 60

aaggcaatgg cggccgagag cttccttttc acctcggagt ccgtgaacga ggggcacccc 120

gaacaagctg tgcgaccagg tgtcggacgc cgtgcttgac gcatgcctcg cgcaggaccc 180

cgacagcaag gtggcctgcg agacctgcac caagaccaac atggtgatgg tgttcggcga 240

gatcacgacc aaggcgaccg tggactacga gaagatcgtg cgcgacacct gccgcga 297

<210> 176
<211> 275
<212> nucleic acid
<213> Zea mays

<400> 176

agatgccgtt cttgacgctt gccttgctga ggaccctgac agcaaggttg cttgtgagac 60

ctgcaccaag accaacatgg tcatggtctt tggtgagatc accaccaagg ccaatgttga 120

ctacgagaag attgtcaggg agacctgccg caacattggt tttgtgtcaa acgatgttgg 180

gcttgacgcc gaccactgca aggtgctcgt gaacattgag cagcagtccc ctgatatgct 240

cagggtgtgc atggccattc accaagcgcc ccgag 275

<210> 177
<211> 534
<212> nucleic acid
<213> Zea mays

<400> 177

gaggnagctt tnannggggn ttaagggnat ttttaaaccc tnntttgnat tcccgggtcg 60

acccacgcgt ccgcttgccg gtcccgaata aagagcagcn ncgcaagagg tcggtagagc 120

gagaagaagg caatggcggc cgagagcttc cttttcacct cggagtccgt gaacgagggg 180

caccccgaca agctgtgcga ccaggtgtcg gacgccgtgc ttgacgcatg cctcgcgcag 240

gaccccgaca gcaaggtggc ctgcgagacc tgcaccaaga ccaacatggt gatggtgttc 300

ggcgagatca cgaccaaggc gaccgtggac tacgagaaga tcgtgcgcga caccttnccg 360

cgagatcggg ttcacctttc gacgacntgg gccttgacgc ccacccggtt caaggtgctt 420

gtgnacattg agcaagaatt ccccgaaatt gngcaaggcg ttcaccggca ctttacgaac 480

cggcccnagg aagatcggnc cggccnacca nggncaattt tttgggtccc cccc 534

<210> 178
<211> 248
<212> nucleic acid

<213> Zea mays

<400> 178

gatgcccctc agccatgtcc ttgccaccaa gcttggtgct cgtctcacgg aggttcgcaa 60

gaatggaacc tgcccctggc tcaggcccga tgggaagacc caggtgacag tggagtaccg 120

caacgagggt ggcgccatgg ttcccatccg tgtgcacaca gtcctcatct ctacccagca 180

cgacgagaca gtcaccaacg acgagattgc tgctgacctg aaggagcacg tcatcaagcc 240

agtcatcc 248

<210> 179
<211> 302
<212> nucleic acid
<213> Zea mays

<400> 179

ctcctccctc ctgccgggtc cttaataaag agcagcagcg caagaggttg gtagagcgag 60

cgagaagaag gcaatggcgg cggagagcnt cctgttcacc tcggagtccg tgaacgaggg 120

gnacccagac aagctgtgcg accaggtgtc ggacgcggtg ctggacgcct gcctggcgca 180

ggaccccgac agcaaggtgg cctgcgagac ctgcaccaag acgaacatgg tgatggtgtt 240

cggcgagatc accaccaagg cgagcgtgga ctacgagaag atcgtgcgcg acacctgccg 300

cg 302

<210> 180
<211> 281
<212> nucleic acid
<213> Zea mays

<400> 180

angtctccta cgccatcggc gtggcccgan cccctgtcgg tgttcgtgga cacgtacggc 60

accggcgcga tccccgacaa ggagatcctg aagatcgtga aggagaactt cgacttcagg 120

cccggcatga tcatcatcaa cctcgacctc aagaaaggcg gcaacgggcg ctacctcaag 180

acggcggcct acgggcactt tgggagggac gaccccgact tcacctggga aggtggtgaa 240

gcccctcaag gcggagaagc cgtcttctgc atgaggcgcn t 281

<210> 181

<211> 269
<212> nucleic acid
<213> Zea mays

<400> 181

gacacattcc tcttcacctc ggagtctgtg aacgagggac accctgnana agctctgtga 60

ccaggtctca gatgccgttc ttgacgcttg ccttgctgag gaccctgaca gcaaggttgc 120

ttgtgagacc tgcaccaaga ccaacatggt catggtcttt ggtgagatca ccaccaaggc 180

caatgttgac gccgagaaga ttgtcaggga gacctgccgc aacattggtt ttgtgtcaaa 240

cgatgttggg cttgacgcng accatgcaa 269

<210> 182
<211> 286
<212> nucleic acid
<213> Zea mays

<400> 182

ccctcttgcc ggtcccgaat aaagagcagc agcgcaagag gtcggtagag cgagaagaag 60

gcaatggcgg ccgagagctt ccttttcacc tcggaanccg tgaacgaggg gcaccccgac 120

aagctgtgcg accaggtgtc ggacgccgtg cttgacgcat gcctcgcgca ggaccccgac 180

agcaaggtgg cctgcgagac ctgcaccaag accaacatgg tgatggtgtt cggcgagatc 240

acgaccaagg cgaccgtgga ctacgagaag atcgtgcgcg acacct 286

<210> 183
<211> 240
<212> nucleic acid
<213> Zea mays

<400> 183

gcgcgacacc tgccgcgaga tcgggttcac ctccgacgac gtgggcctcg acgccgaccg 60

ctgcaaggtg ctggtgaaca tcgagcagca gtcccccgac atcgcgcagg gcgtgcacgg 120

gcacttcacg aagcggcccg aggagatcgg cgcgggcgac cagggccaca tgttcgggta 180

cgncaccgac gagacccccg agctgatgcc gctgagccac gtggtggcca ccaagctggg 240

<210> 184
<211> 250
<212> nucleic acid

<213> Zea mays

<400> 184

cctgagcagt accttgacga gaagaccatc ttccacctta acccatctgg ccgctttgtc 60

attggtggac ctcacggcga tgctggcctc actggccgca agatcatcat tgacacctac 120

ngtggctggg gagcccatgg tggtggcgct ttctccggca aggacccaac caaggttgac 180

cgcagcggag cctatgtcgc aaggcaggct gccaagagca tcgtcgccag cggccttgct 240

cgccgcgcca 250

<210> 185
<211> 305
<212> nucleic acid
<213> Zea mays

<400> 185

gcctcttctc ctccctcctg ccgggtcctt aataaagagc agcagcgcaa gaggttggta 60

gagcgagcga gaagaaggca atggcggcgg agagcttcct gttcacctcg gagtccgtga 120

acgaggggca cccagacaag ctgtgcgacc aggtgtcgga cgcggtgctg gacgcctgcc 180

tggcgcagga ccccgacagc aaggtggcct gcgagacctg caccaagacg aacatggtga 240

tggtgttcgg cgagatcacc accaaggcga gcgtggacta cgagaagatc gtgcgcgaca 300

cctgc 305

<210> 186
<211> 305
<212> nucleic acid
<213> Zea mays

<400> 186

cgacagcaga ggnggcnngc gagacctgca ccaagaccaa catggtgatg ttgttcggcg 60

agatcacgac caaggcganc gtggactacg agaagatcgt gcgcgacacc tgatcgcgag 120

atcgggttca cctcccgacg acgtgggcct cgacgccgac cgctgcnagg ngctggtgaa 180

natcgagcan cagtcncccg acatcgcgca ngcntgcacg ggcacttcac naagcgnccc 240

gangagatcg ncgcggncta ccatnggcac atgttcgggt acncnaccna nnagacnnnc 300

gagct 305

<210> 187
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 187

ccttgccacc aagcttggtg ctcgtctcac ggaggttcgc aagantggaa cctgcccctg 60

gctcaggccc gntgggaaga cccaggtgac agtggagtac cgcaacgagg gtggcgccat 120

ggttcccatc cgtgtgcaca cagtcctcat ctctacccag cacgacgaga cagtcancaa 180

cgacgagatt gctgctgacc tgaaggagca cgtcatcaag ccagtcatcc ccgagnagnn 240

acctcgacga gaagacaatc ttccacanac tnna 274

<210> 188
<211> 232
<212> nucleic acid
<213> Zea mays

<400> 188

agcacgtcat caagccagtc atccccgagc agtacctcga cgagaagaca atcttccacc 60

tcaacccgtc tggccgcttc gtcatcggcg gacctcacgg cgacgctggc ctcactggcc 120

ggaagatcat catcgacacc tacggtggct ggggagccca cggcgggggc gccttctccg 180

gcaaggaccc gaccaaggtg gaccgcagcg gggcctacgt cgcgaggcag gc 232

<210> 189
<211> 243
<212> nucleic acid
<213> Zea mays

<400> 189

gcccctcagc catgtccttg ccaccaagct tggtgctcgt ctcacagagg ttcgcaagaa 60

tggaacctgc ccctggctca ggcccgatgg gaagacccag gtgacagtgg agtaccgcaa 120

cgagggtggc gccatggttc ccatccgtgt gcacacagtc ctcatctcta cccagcacga 180

cgagacagtc accaacgacg agattgctgc tgacctgaag gagcacgtca tcaagccagt 240

cat 243

<210> 190

<211> 290
<212> nucleic acid
<213> Zea mays

<400> 190

ccctcttgcc ggtcccgaat aaagancagc agcgcaagag gtcggtagag cnagaagaan 60

gcaatggcgg ccgagagctt ccttttcacc tcggagtccg tgaacgaggg gcaccccgac 120

aagctgtgcg accaggtgtc ggacgccgtg cttgacgcat gcctcgcgca ggaccccgac 180

ancnaggtgg cctgcgagac ctgcaccaag accaacatgg tgatggtgtt cggcnagatc 240

acgaccaagg cgaccgtgga ctacnagaag atcgtgcgcg acacctgccg 290

<210> 191
<211> 266
<212> nucleic acid
<213> Zea mays

<400> 191

gncacattcc ncttcacctc ggngtctgtg ancgagggac accctgacna gctctgtgac 60

caggtctcag atgccgttct tgacgcttgc cttgctgagg ancctgacag caaggttgct 120

tgtgagacct gcaccaagac caacatggtc atggtctttg gtgagatcac caccaaggcc 180

aatgttgact acgagangat tgtcagggag acctgccgca acattggttt tgtgtcaaac 240

gatgttgggc tgacgccgac cactgc 266

<210> 192
<211> 276
<212> nucleic acid
<213> Zea mays

<400> 192

gtgccatggt ccccatccgt gtccacaccg tcctcatctc cacccagcac gacgagacag 60

tgaccaatga tgagatcgct gctganctga aggagcatgt catcaagcct gtcatccctg 120

agcagtacct tgacgagaag accatcttcc acttaaccca tctgcccgct ttgtcattgg 180

tggacctcac ggcgatgctg gcctcactgg ccgcaagatc atcattgaca ctacggtggc 240

tggggagccn atgntgtggc gtttncnggg aaggcc 276

<210> 193

<211> 292
<212> nucleic acid
<213> Zea mays

<400> 193

anggtggctg gggagcccat ggtggtggcg ctttctccgg caaggaccca accaaggttg 60

acngcagcgg agcctatgtn cgcaaggcag gctgccaaga gcatcgtcgc cagcggcctt 120

gctcgccgcg ccatcgtcca ggtgtcttac gccatcggcg tgcccgagcc tctctccgtg 180

ttcgtcgaca cgtacggcac cggcgcgatc cccgacaagg agatcctcaa gattgtcaag 240

gagaattcga tttcaggcct ggcatgatct catcaacctt gactcaagaa gg 292

<210> 194
<211> 226
<212> nucleic acid
<213> Zea mays

<400> 194

ctacgagaag atcgtgcgcg acacctgccg cgagatcggg ttcacctccg acgacgtggg 60

cctcgacgcc gaccgctgca aggtgctggt gaacatcgag cagcagtccc ccgacatcgc 120

gcagggcgtg cacgggcact tcacgaagcg gcccgaggag atcggcgcgg gcgaccaggg 180

ccacatgttc gggtacgcca ccgacgagac ncccgagctg atgcng 226

<210> 195
<211> 289
<212> nucleic acid
<213> Zea mays

<400> 195

cttcnccctc ttgccggtcc cgaataaaga gcagcagcgc aagaggncgg tagagcgaga 60

agaaggcaat ggcggccgag agcttccttt tcacctcgga gtccgtgaac gaggggcacc 120

ccgacaagct gtgcgaccag gtgtcggacg ccgtgcttga cgcatgcctc gngcaggacc 180

ccgacagcaa ggtggcctgc gagacctgca ccaagaccaa catggtgatt gtgttcggcg 240

agatcacgac canggcgacc gtggactacg agaagatcgt gcgcnacac 289

<210> 196
<211> 300
<212> nucleic acid

<213> Zea mays

<400> 196

cgcctcttct cctccctcct gccgggtcct taataaagag cagcagcgca agnggttggt 60

agagcgagcg agaagaaggc aatggcggcg gagagcttcc tgttcacctc ggagtccgtg 120

aacgaggggc acccagacaa gctgtgcgac caggtgtcgg acgcggtgct ggacgcctgc 180

ctggcgcagg accccgacag caaggtggcc tgcgagacct gcaccaagac gaacatggtg 240

atggtgttcg gcgagatcac caccaaggcg agcgtggact acgagaagat cgtgcgcgac 300

<210> 197
<211> 284
<212> nucleic acid
<213> Zea mays

<400> 197

ccctcttgnc ggtcccgaat aaagagcagc agcgcaagag gtcgntagag cgagaagaag 60

gcaatggcgg ccgagagctt ccttttcacc tcggagtccg tgaacgaggg gcaccccgac 120

aagctgtgcg accaggtgtc ggacgccgtn cttgangcat gcctcgcgca ggaccccgac 180

agcaaggtgg cctgcgagac ctgnaccaag acnaacatgg tgatggtgtt cggcgagatc 240

acgaccaagg cgaccgtgga ctacgagaag atcgtgcgcg acac 284

<210> 198
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 198

gtcccgaata aagagcagca gcgcaagang tcggtagagc ganaanaang caatggcggc 60

naagagcttc cttttcacct cggagtccgt gaacgagggg cancccgaac aagctgtncg 120

accaggtgtc ggacgccgtg cttgacgcat gcctcgcgca ggaccccgac agcaaggtgg 180

cctgcgagac ctgcaccaag accaacatng tgatggtgtt cggcgagatc acgaccaang 240

cgaccgtgga ctacgagaag atcgtgcgcg acacctgccg cg 282

<210> 199
<211> 292
<212> nucleic acid

<213> Zea mays

<400> 199

acgccatcgg ntgccgganc ccctgtccgt gttcgtcaac tcgtacggca ccggcacgat 60

ccccgacaag gagatcctca agatcgtgaa ggagaacttc gacttcaggc ccgggatgat 120

cagcatcaac ctcgacctga agaagggcgg caacaggttc atcaagaccg ncgcctacgg 180

ccacttcggc cgtgacgacg ccgacttcac ctgggaggtg gtgaagcccc tcaagttcga 240

caaggcatcg gcttaaggtt gggantgtca tgtggacatg angatacntc ct 292

<210> 200
<211> 291
<212> nucleic acid
<213> Zea mays

<400> 200

cgtttgcctc ttctccctct tgccggtccc gaataaagag cagcagcgca agaggtcggt 60

agagcgagaa gaaggcaatg gcggccgaga gcttcctttt cacctcggag tccgtgaacg 120

angggcaccc cgacaagctg tgcgaccagg tgtcggacgc cgtgcttgac gcatgcctcg 180

cgcaggaccc cgacagcaag gtggcctgcg agacctgcac caagaccaac atggtgatgg 240

tgttcggcga gatcacgacc aaggcgaccg tggactacga gaagatcgtg g 291

<210> 201
<211> 337
<212> nucleic acid
<213> Zea mays

<400> 201

gtnttacgcn atcngcaggc ccnagnntct ctncgtgttc gtcgacacgt anggcancgg 60

cgngatnncn ganaaggaga tcctcaagat tgtnaaggng aactnngatt tcaggcctgg 120

catgatcatc atcaaccttg acctcaagan aggcggnaac gggcgctacc tcaagacggc 180

ggattanggc cactttggaa gggangaccc tgacttcacc tgggatgtgg tnaagccact 240

caantcggag aaacctnctg cctaaggcgg ntttntttc agtaagaagc ttttggtggt 300

ctgctgtgct taatcatgcn ttatatggct tctacac 337

<210> 202

<211> 279
<212> nucleic acid
<213> Zea mays

<400> 202

cttctccctc ttgccggtcc cgaataaaga gcagcagcgc aagaggtcgg tagagcgaga 60

agaaggcaat ggcggccgag agcttccttt tcacctcgga gtccgtgaac gaggggcacc 120

ccgacaagct gtgcgaccag gtgtcggacg ccgtgcttga cgcatgcctc gcgcaggacc 180

ccgacagcaa ggtggcctgc gagacctgca ccaagaccaa catggtgatg gtgttcggcg 240

agatcacgac caaggcgacc gtggactacg agaagatcg 279

<210> 203
<211> 443
<212> nucleic acid
<213> Zea mays

<400> 203

aaantcacgg gtcgacncac gcgtcnnnac ngactnntac taacgcgtgg gcggacgcgt 60

gggggganggt gtggacacgg ntggggacca tggcagcacc ctcattgcgg taatcgactg 120

tcacccctga gcagtacctt gacgagaaga ccatcttcca ccttaaccca tctggccgct 180

ttgtcattgg tggacctcac ggcgatgctg gcctcactgg ccgcaagatc atcattgaca 240

cctacggtgg ctggggagcc catggtggtg gcgctttctc cggcaaggac ccaaccaagg 300

ttgaccgcag cggagcctat gtcgcaaggc angctgcnaa gagcatcgtc gccagcgggc 360

cttgctcgnc cgngccatcg tccaaggtgt ncttaagcca atcggcntgc ccgancctnt 420

ctccgntttt cgtcnaaang tta 443

<210> 204
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 204

tgcctcttct ccctcttgcc ggtcccgaat aaagagcagc agcgcaagag gtcggtagag 60

cgagaagaag gcaatggcgg ccgagagctt ccttttcacc tcggagtccg tgaacgangg 120

gcaccccgac aagctgtgcg accaggtgtc ggacgccgtg cttgacgcat gcctcgcgca 180

ggancccgac agcaaggtgg cctgcgagac ctgcaccaag accaacatgg tgatggtgtt 240

cggcgagatc acgaccaagg cgaccgtgga ctacgagaag atcgtgcgcg 290

<210> 205
<211> 304
<212> nucleic acid
<213> Zea mays

<400> 205

cgcctcntcn ccncccnccn gccgggtcct taataaagag cagcagcgca agangttggt 60

agagcgagcg agaaagaagg catggcggcg gagagcttcc tgttcacntc ggagtccgtg 120

aacgaggggc acccagacaa gctgtgcgac caggtgtcgg acgcggtgct ggacncctgc 180

ctggcgcagg accccgacag caaggtggcc tgcgagaccn gcaccaagac gaacatggtg 240

atggtgttcg gcgagatcac caccaaggcg agcgtggacn acgagaagat cgtgcgcgac 300

acct 304

<210> 206
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 206

ctcttctcct ccctcctgcc gtttccttaa taaagagcag cagcgcaaga ggttggtaga 60

gcgagcgaga agaaggcaat ggcggcggag agcttcctgt tcacctcgga gtccgtgaac 120

gaggggcacc cagacaagct gtgcgaccag gtgtcggacg cggtgctgga cgcctgcctg 180

gcgcaggacc ccgacagcaa ggtggcctgc gagacctgca ccaagacgaa catggtgatg 240

gtgttcggcg agatcaccac caaggcgagc gtngactacg agaagatcgt 290

<210> 207
<211> 247
<212> nucleic acid
<213> Zea mays

<400> 207

gatcaccacc aaggccaatg ttgactacga gaagattgtc agggagacct gccgcaacat 60

tggttttgtg tcaaacgatg ttgggcttga cgccgaccac tgcaaggtgc tcgtgaacat 120

tgagcagcag tcccctgata ttgctcaggg tgtgcatggc cacttcacca agcgccccga 180

ggagattgga gctggtgacc agngacacat gttcgggtat gcgaccgatg agaccctgag 240

ttgatgc 247

<210> 208
<211> 291
<212> nucleic acid
<213> Zea mays

<400> 208

cgtttgcctc ttctccctct tgccggtccc gaataaagag cagcagcgca agaggtcggt 60

agagcgagaa gaaggcaatg gcggccgaga gcttcntttt cacctcggag tccgtgaacg 120

aggggcaccc cgacaagctg tgcgaccagg tgtcggacgc cgtgcttgac gcatgcctcg 180

cgcaggaccc cganagcaag gtggcctgcg agacctgcac caagaccaac atggtgatgg 240

tgttcggcga gatcacgacc aaggcgaccg tggactacga gaagatcgtg c 291

<210> 209
<211> 428
<212> nucleic acid
<213> Zea mays

<400> 209

cggacgcttg ggctttcgcg tggggtcgac acgtacgggn ccgggggggat cnccgacaag 60

gagatcctca agattgtcaa ggagaacttt tatttcaggc ctggcatgat catcatcaac 120

cttgacctca agaaaggcgg caacgggcgc tacctcaaga cggcggncta cggccacttt 180

ggaagggacg accctgactt cacctgggag gtggtgaagc cactcaagtc ggagaaacct 240

tctgcctaag gcggcctttt ttttcagtaa gaagcttttg gtggtctngc tgtgcttaat 300

catgctttta tatggcttct acatgttgga ggntctttct tgatctgcac cgggcttatc 360

gnttgtgttg nactgcccta ataagtggtg cttatgagga ctggttctgg ttttgctgct 420

tatgtngt 428

<210> 210
<211> 295
<212> nucleic acid
<213> Zea mays

<400> 210

ccttaatnaa gngcagcagc gcaaggtgag ccgccagctt gccccaggtt ggtagagcga 60

gcgagaagaa ggcaatggcg gcggagagct tcctgttcac ctcggagtcc gtgaacgagg 120

ggcacccaga caagctgtgc gaccaggtgt cggacgcggt gctggacgcc tgcctggcgc 180

aggaccccga cagcaaggtg gcctgcgaga cctgcaccaa gacgaacatg gtgatggtgt 240

tcggngagat caccaccaag gcgagcgtgg actacgagan gntcgtgcnc gacac 295

<210> 211
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 211

ggccacttca ncaagcgtcc cgaggagatt ggagctggtg accagggacn cgtgttgcgg 60

gtatgcgacc gatgagaccc ctgagttgnt gcccctcagc catgtccttg ccaccaagct 120

aggtgctcgt ctcactgagg tccgcaagaa cggaacctgc ccctggctca ggcctgatgg 180

gaagacccnn gtgacagtcg agtaccgcaa tgagggtggt gcnatggtcc cngnnngtgt 240

ccanaccgtc ctcattt 257

<210> 212
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 212

ctcggatccg cccgaccacg accaccccgc gtcgccgccg cgcagaagca gcagatcaga 60

gaagatggcc ggactcgaca ccttcctctt cacctcggag tccgtgaacg agggacaccc 120

tgacaagctc tgcgaccagg tctcagatgc tgttctggac gcttgccttg ctgaggaccc 180

tgacagcaag gttgcttgcg agacctgcac caagaccaac atggtcatgg tctttggtga 240

gatcaccacc aaggcaatgt cgactagaga agattgtcag ggagacat 288

<210> 213
<211> 467
<212> nucleic acid
<213> Zea mays

<400> 213

ttnnnnttcc ttnggccccn aaaggtaaaa ggactcccgg gtcgacccac gcgtcagcca 60

cgcgtccgcc cacgcgtccg cccacgcgtc cgcccacgcg tccgcccacg cgtccgcccc 120

ctcctgccgg gtccttaata aagagcagca gcgcaaggtg agccgccagc ttgccccggt 180

tggtagagcg agcganaaga angcaatggc ggcgganagc ttcctgttca cctcgggtcc 240

gtgaacgagg ggcacccaga caagctgtgc gaccaggtgt cggacgcggt gctggcgcct 300

gcctggcgca ggaccccgac agcaaggtgg cctgcgagac ctgcaccaag acgacatggt 360

gatggtgttc ggcgagatna ccaccaaggc gagcgtggac tacgaaaaag atntgcgcga 420

aaactggccg ccaagatcgg gttcacctcc gacgacgtgg ggctcga 467

<210> 214
<211> 287
<212> nucleic acid
<213> Zea mays

<400> 214

cggacctggg cgttctccct cttgccggtc ccgaataaag agcagcagcg caagaggtcg 60

gtagagcgag aagaaggcaa tggcggccga gagcttcctt ttcacctcgg agtccgtgaa 120

cgaggggcac cccgacaagc tgtgcgacca ggtgtcggac gccgtgcttg acgcatgcct 180

cgcgcaggac cccgacagca aggtggcctg cgagacctgc accaagacca acatggtgat 240

ggtgttcggc gagatcacga ccaaggcgat cgtggactac gagaaga 287

<210> 215
<211> 294
<212> nucleic acid
<213> Zea mays

<400> 215

ctcttctcct ccctcctgnn gggtccttaa taaagagcag cagcgcaaga ngttggtaga 60

gcgancgana agaaggcaat ggcggcggag agcttcctgt tcanctcgga gtccgtgaac 120

gaggggcacc cagacaagct gtgcgaccag gtgtcggacg cggtgctgga cgcctgcctg 180

gcgcaggacc ccgacagcaa ggtggcctgc gagacctgca ccaagacgaa catggtgatg 240

gtgttcggcg agatcaccac caaggcgagc gtggactacn agaagatcgt gcgc 294

<210> 216
<211> 228
<212> nucleic acid
<213> Zea mays

<400> 216

cggaacctgc ccctggctca ggcctgatgg gaagacccag gtgacagtcg agtaccgcaa 60

tgagggtggt gccatggtcc ccatccgtgt ccacaccgtc ctcatctcca cccagcacga 120

cgagacagtg accaatgatg agatcgctgc tgacctgaag gagcatgtca tcaagcctgt 180

catccctgag cagtaccttg acgagaagac catcttccac cttaaccc 228

<210> 217
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 217

cggcccactt caccaagcgc ccantaggag attggagctn gtgaccaggg gcacatgtan 60

gggtatgcga ctgacgagac ccctgagctg atgcccctca gccatgtcct tgccaccaag 120

cttggtgctc gtccacggag gttcgcaaga atggaacctg cccctggctc aggcccgatg 180

ggaagaccca ggtgacagtg gagtaccgca agagggtggc gccatggttc ccatccgtgt 240

gcacacagtc ctcatctcta cccagcag 268

<210> 218
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 218

cgcatgcctc gcgcagcacc ccgacagcaa ggtggcntgc gagacctgca ccaagaccaa 60

catggtnatg gtnttcggcg agatcacgac caaggctacc gtgggactac gagaagatcg 120

tgcgctacac ctgncgcgag atcnggttca cctccgacga cgtgggcctc gacgcctacc 180

gctncaaggt gctggtgaac atctagcagc agtcccccga catnncgcag ggcgtgcacg 240

ggcattcnng aagcggcccg agg 263

<210> 219

<211> 256
<212> nucleic acid
<213> Zea mays

<400> 219

gagcccacgg cgggggcgcc ttctccggca aggacccgac caaggtggac cgcagcgggg 60

cctacgtcgc gaggcaggct gccaagagca tcgtcgccgc cggcctcgcc cgccgcgcca 120

ttgtccaggt ctcctacgcc atcgggtgcc cgancccctt tcggtgttcg tggacacgta 180

cggcaccggc gcgatccccg acaaggagat cctgaagatc gtgaaggaga attcgacttc 240

aggcccggca tgatca 256

<210> 220
<211> 334
<212> nucleic acid
<213> Zea mays

<400> 220

anngccggag cccctgtccg tgttcgtcaa ctcgtacggc accggcacga tccccgacaa 60

ggagatcctc aagatcgtga aggagaactt cgacttcagg cccgggatga tcagcatcaa 120

cctcgacctg aagaagggcg gcaacaggtt catcaagacc gccgcctacg gccattcggc 180

cgtgacgacg ccgacttcac ctgggaggtg gtgaagcccc tcaagttcga caaggcatcg 240

gcttaaggtt nggatgtcac tgtggacatg aggactactt cctctggctc tgctgttacc 300

tgcaagcatt gtgctgtgga tgtgtgtgtt tgat 334

<210> 221
<211> 255
<212> nucleic acid
<213> Zea mays

<400> 221

ccccgacaag ctgtgcgacc aggtgtcgga cgccgtgctt gacgnatgcn tcncgcaggn 60

ccccnncanc nnggtggcct gcgagacctg caccaagacc aacatngtga tggtgttcgg 120

cgagatcacg ancaaggcga ccgtggacta cgagnngatc gtncgcgaca cctgccgcga 180

gatcgggttc aatccganga ngtgggcctc nacgccgnnc gctgcnaggt gctggtgaac 240

ntcgagcagc agtcc 255

<210> 222
<211> 222
<212> nucleic acid
<213> Zea mays

<400> 222

ccacccagca cgacgagaca gtgaccaatg atgagatcgc tgctgacctg aaggagcatg 60

tcatcaagcc tgtcatccct gagcagtacc ttgacgagaa gaccatcttc caccttaacc 120

catctggccg ctttgtcatt ggtggacctc acggcgatgc tggcctcact ggccgcaaga 180

tcatcattga cacctacggt ggctggggag cccatggtgg tg 222

<210> 223
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 223

ctccctcttg ccggtcccga ataaagagca gcagcgcaag aggtcggtag agcgagaaga 60

aggcaatggc ggccgagagc ttccttttca cctcggagtc cgtgaacgag gggcaccccg 120

acaagctgtg cgaccaggtg tcggacgccg tgcttgacgc atgcctcgcg caggaccccg 180

acagcaaggt ggcctgcgag acctgcacca agaccaacat ggtgatggtg ttcggcgaga 240

tcacgaccaa ggcgaccgtg gactacgag 269

<210> 224
<211> 311
<212> nucleic acid
<213> Zea mays

<400> 224

ccccgttcgc ctcttctcct ccctcctgcc gggtccttaa taaagagcag cagcgcaaga 60

ggttgggaga gcgagcgaga agaaggcaat ggcggcggag agcttcctgt tcacctctga 120

gtccgtgaac gangggcanc cagacaagct gtgcgaccag gtgtcggacg ctgtgctgga 180

ctcctgcctg gcgcaggacc ccgacagcaa agtggcctgc gagacctgca ccaagacgaa 240

catggtgatg gtgttcggcg agatcancan caangcgagc gtggactacg agaagatngt 300

gcgcgacacc t 311

<210> 225
<211> 293
<212> nucleic acid
<213> Zea mays

<400> 225

gtgttcgtca actcgtacgg caccggcacg atccccgaca aggagatcct caagatcgtg 60

aaggagaact tcgacttcag gcccgggatg atcagcatca acctcgacct gaagaagggc 120

ggcaacaggt tcatcaagac cgccgcctac ggccacttcg gccgtgacga cgccgacttc 180

acctgggagg tggtgaagcc cctcaagttc gacaaggcat cggcttaagg ttgggagtgt 240

cactgtggac atgaggacta ccttcctctg gctctgctgt tacctgcaag cat 293

<210> 226
<211> 225
<212> nucleic acid
<213> Zea mays

<400> 226

gccggagccc ctgtccgtgt tcgtcaactc gtacggcacc ggcacgatcc ccgacaagga 60

gatcctcaag atcgtgaagg agaacttcga cttcaggccc gggatgatca gcatcaacct 120

cgacctgaag aagggcggca acaggttcat caagaccgcc gcctacggcc acttcggccg 180

tgacgacgcc gacttcacct gggaggtggt gaagcccctc aagtt 225

<210> 227
<211> 256
<212> nucleic acid
<213> Zea mays

<400> 227

cacctcaacc cgtctggccg cttcgtcatc ggcggacctc acggcgacgc tggcctcact 60

ggccggaaga tcatcatcga cacctacggt ggctggggag cccacggcgg gggcgccttc 120

tccggcaagg acccgaccaa ggtggaccgc agcggggcct acgtcgcgag gcaggctgcc 180

aagagcatcg tcgccgccgg cctcgcccgc ngtgccatcg tcaagtnttc naaggcatcg 240

ggttgcccga anccct 256

<210> 228

<211> 281
<212> nucleic acid
<213> Zea mays

<400> 228

tcatcattga cacctacngt ggctggggag cccatggtgg tggcgctttc tccggcaaga 60

nacccaacca aggttgaccg cagcggagcc tatgtcgcaa ggcaggctgc caagagcatc 120

gtcgccagcg gccttgctcg ccgcgccatc gtccaggtgt cttacgccat cggntgcccg 180

agcctctctc cgtgttcgtc gacacgtacg gcaccggcgc gatccccgac aaggagatct 240

caagattgtc aaggagaatt cgatttcagg ctggcatgat c 281

<210> 229
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 229

ctccgcctcg accggatctc gtcggactcg gatccgcccg accaccccgc gccgccgcag 60

atccagagaa gatggcagct gtcgacacat tcctcttcac ctcggagtct gtgaacgagg 120

gacaccctga caagctctgt gaccaggtct cagatccgtt cttgacgctt gccttgctga 180

ggaccctgac agcaaggttg cttgtgagac ctgcaccaag accaacatgg tcatggtctt 240

tggtgagatc accaccaagg ccaatgttga ctacgagaag attgtcaggg 290

<210> 230
<211> 318
<212> nucleic acid
<213> Zea mays

<400> 230

ctntctccct ctttgccggt cccgaataaa gagcagcagc gcaagaggtc ggtagagcga 60

gaagaaggca atggcggccg agagcttcct tttcacctcg gagtccgtga aacgaggggc 120

accccgaaca agctgtgcga ccangtgtcg gacgccgtgc tttgacgcat gnctcncgca 180

ngagnccgac agcaangtgg cctgcgagac ctgcaccaag ancaacatgg tgatggtgtt 240

cggcgagatc acgaccaagg cgaccgtgga ctacgagaag atcgtgcgcg acacctgccg 300

cgagatcggg ttcactcc 318

<210> 231
<211> 276
<212> nucleic acid
<213> Zea mays

<400> 231

attgacacct acggtggctg gggagcccat ggtggtggcg ctttctccgg caaggaccca 60

accaaggttg accgcagcgg agcctatgtc gcaaggcagg ctgccaagag catcgtcgcc 120

agcggccttg ctcgccgcgc catcgtccag gtgtcttacg ccatcggntg cccgagcctc 180

tctccgtgtt cgtcgacacg tacggcaccg gcgcgatccc cgacaaggag atcctcaaga 240

tgtcaaggag aattcgattt cangctggca tgatca 276

<210> 232
<211> 244
<212> nucleic acid
<213> Zea mays

<400> 232

ctcacggcga tgctggcctc actggccgca agatcatcat tgacacctac ggtggctggg 60

gagcccatgg tggtggcgct ttctccggca aggacccaac caaggttgac cgcagcggag 120

cctatgtcgc aaggcaggct gccaagagca tcgtcgccag cggccttgct cgccgcgcca 180

tcgtccaggt gtcttacgcc atcgggtgcc cgagcctctc tccgtgttcg tcgacacgta 240

cggc 244

<210> 233
<211> 349
<212> nucleic acid
<213> Zea mays

<400> 233

atcaccacca agggccaatg ttgactacga gaagattgtc agggagacct gccgcaacat 60

tggtttgtgt caaaacgatg ttgggcttga cgccgaccac tgcaaggtgc tcgtgaacat 120

tgagcagcag tcccctgata ttgctcaggg tgtgcatggc cacttcacca agcgccccga 180

ggagattgga gctggtgacc agggacacat gttcgggtat gcgaccgatg agaccctgag 240

ttgatgccct caagccatgt cttgccacca gctagtgctc gtctcacgag gccgcaaaan 300

ggactgnccn ggnnaanctg atggagacca gtganatcga gtacncatt 349

<210> 234
<211> 228
<212> nucleic acid
<213> Zea mays

<400> 234

cggcgatgct ggcctcactg gccgcaagat catcattgac acctacggtg gctggggagc 60

ccatggtggt ggcgctttct ccggcaagga cccaaccaag gttgaccgca gcggagccta 120

tgtcgcaagg caggctgcca agagcatcgt cgccagcggc cttgctcgcc gcgccatcgt 180

ccaggtgtct tacgccatcg gcgtgcccga gcctctctcc gtgttcgt 228

<210> 235
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 235

cctgacagca aggttgcttg cgagacctgc accaagacca acatggtcat ggtctttggt 60

gagatcacca ccaaggccaa tgtcgactac gagaagattg tcagggagac atgccgcaac 120

atncgtttcg tgtcgaacga tgtcgggctt gacgctgacc actgcaaggt gcttgtnaac 180

attnagcagc agtcccctga tattgctcag ggtgtgcagg ccattcacna agccccccga 240

ggagntngag tgtgaccagg gga 263

<210> 236
<211> 219
<212> nucleic acid
<213> Zea mays

<400> 236

gcgagaagaa ggcaatggcg gccgagagct tccttttcac ctcggagtcc gtgaacgagg 60

ggcancccga caagctgtgc gaccaggtgt cggacgccgt gcttgacgca tgcctcgcgc 120

aggaccccga cagcaaggtg gcctgcgaga cctgcaccaa gaccaacatg gtgatggtgt 180

tcggcgagat cacgaccaag gcgaccgtgg actacgaga 219

<210> 237

<211> 301
<212> nucleic acid
<213> Zea mays

<400> 237

cgttcgcctc ttctcctccc tcctgccggg tccttaataa agagcagcag cgcaagaggt 60

tggtagagcg agcgagaaga aggcaatggc ggcggagagc ttcctgttca cctcggagtc 120

cgtgaacgag gggcacccag acaagctgtg cgaccaggtg tcggacgcgg tgctggacgc 180

ctgcctggcg caggaccccg acagcaaggt ggcctgcgag acctgcacca agacgaacat 240

ggtgatggtg ttcggcgaga tnaacaacaa aggcgagcgt ggactacgag aagatggtgc 300

g 301

<210> 238
<211> 439
<212> nucleic acid
<213> Zea mays

<400> 238

gtcggatctg agacgagacg agttaccatc tcatcccaac tccggaacga acaagttacc 60

atctcatccc aactccgcct cgaccggatc tcgtcggact cggatccgcc cgaccacccc 120

gcgccgccgc agatcaaaga agatggcagc tgtcgacaca ttcctcttca cctcggagtc 180

tgtgaacgag ggacaccctg acaagctctg tgaccaggtc tcagatgccg ttcttgacgc 240

ttgccttgct gaggaccctg acagcaaggt tgcttgtgag acctgcacca agaccaacat 300

gggcatggnc tttggtgaga tcaccaccaa ggccaatggt gactaccaag aagattgtca 360

gggagnacct gccgnaacat tnggtttggg gtcaaacgat gttggcttga cgccaaccac 420

tggaaggggc tcgtnaant 439

<210> 239
<211> 239
<212> nucleic acid
<213> Zea mays

<400> 239

aggtgacagt cgagtaccgc aatgagggtg gtgccatggt ccccatccgt gtccacaccg 60

tcctcatctc cacccagcac gacgagacag tgaccaatga tgagatcgct gctgacctga 120

aggagcatgt catcaagcct gtcatccctg agcagtacct tgacgagaag accatcttcc 180

accttaaccc atctggccgc nttgtcattg gtggactcac ggcgatgtgg cctcactgg 239

<210> 240
<211> 224
<212> nucleic acid
<213> Zea mays

<400> 240

gtcagggaga catgccgcaa cattggtttc gtgtcgaacg atgtcgggct tgacgctgac 60

cactgcaagg tgcttgtgaa cattgagcag cagtcccctg atattgctca gggtgtgcac 120

ggccacttca ccaagcgccc cgaggagatt ggagctggtg accaggggca catgtttngg 180

tatncnantt acnngacacc tgagctgatg cccctcagcc atgt 224

<210> 241
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 241

ctcggatccg cccgaccacg accaccccgc gccgccgccg cgcagagcag cagatcagag 60

aagatggccg gactcgacac cttcctcttc acctcggagt ccgtgaacga gggacaccct 120

gacaagctct gcgaccaggt ctcagatgct gttctggacg cttgccttgc tgaggaccct 180

gacagcaagg ttgcttgcga gacctgcacc aagaccaaca tggtcatggt ctttggtgag 240

atcaccacca aggccaatgt cgatacgaga agat 274

<210> 242
<211> 232
<212> nucleic acid
<213> Zea mays

<400> 242

ccctgacaag ctctncgacc aggnctcana tgctgttctg gacgcttgcc ttgctgagga 60

ccctgacagc aaggttgctt gcnagacntg caccaagacc aacatggnca nggtctttgg 120

tgagatcacc accaaggcca angtcgacta cgaggagatt gtcagggaga catgccgcaa 180

cattggtntc gtgtcgaacg atgtcgggct tgacgctgac cactgcaagg tg 232

<210> 243
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 243

cntctccctc ttgccggtcc cgantaaaga gcagcagcgc aagaggtcgg tagagcgaga 60

agaaggcaat ggcggccgag agcntccttt tcacctcgga gtccgtgaac gaggggcacc 120

ccgacaagct gtgcgaccag gtgtcggacg ccgtgcttga cgcatgcctc gcgcaggacc 180

ccgacagcaa ggtggcctgc gagacctgca ccaagaccaa catggtgatg gtgttcggcg 240

agatcacgac caaggcgacc gtggact 267

<210> 244
<211> 309
<212> nucleic acid
<213> Zea mays

<400> 244

cgcctcntcn ccncccnccn gccgggtcct taataaagag cagcagcgca aggtgagccg 60

ccagcttgcc ccaggttggt agagcgagcg agaagaaggc aatggcggcg gagagcttcc 120

tgttcacatc ggagtccgtg aacgaggggc acccagacaa gctgtgcgac caggtgtcgg 180

acgcggtgct ggacgcctgc ntggcgcagg accccgacag caaggtggcc tgcgagaccn 240

gcaccaagac gaacatggtg atggtgttcg gcgagatcac caccaaggcg agcgtggaca 300

acgagaaga 309

<210> 245
<211> 347
<212> nucleic acid
<213> Zea mays

<400> 245

cgcctcgacc gggatctcgt cggactcgga tccgcccgac caccccgcgc cgccgcagat 60

caaagaagat ggcagctgtc gacacattcc tcttcacctc ggagtctgtg aacgagggac 120

accctgacaa gctctgtgac caggtctcag atgccgttct tgacgcttgc cttgctgagg 180

accctgacag caaggttgct tgtgagacct gnaccaagac caacatggtc atggtctttg 240

gtgagatcac caccaaggcc attgtgacta cgagaagatt gtccagggag acttgccgca 300

acattggttt gtgtcaaacg atgttgggnt gacgccacac tgcaaag 347

<210> 246
<211> 261
<212> nucleic acid
<213> Zea mays

<400> 246

cggacggtgg gcggangcgt gggcggacgc gtggggtttc gtgtcgaacg atgtcgggct 60

tgangctgac cactgcaagg tgcttgtgaa cattgnnnca gcagtcccct natattgctc 120

agngtgtgca cggccacttc accaagcgcc ccgaggagat tggagctggt gaccaggggc 180

acatgtttgg gtatgcnact gacgagaccc ctgagctgat gcccctcagc catgtccttg 240

ccaccaagct tggtgctcgt c 261

<210> 247
<211> 211
<212> nucleic acid
<213> Zea mays

<400> 247

gcgaccaggt gtcggacgcc gtgcttgacg catgcctcgc gcaggacccc gacagcaagg 60

tggcctgcga gacctgcacc aagaccaaca tggtgatggt gttcggcgag atcacgacca 120

aggcgaccgt ggactacgag aagatcgtgc gcgacacctg ccgcgagatc gggttcacct 180

ccgacgacgt gggctcgacg ccgaccgctg c 211

<210> 248
<211> 301
<212> nucleic acid
<213> Zea mays

<400> 248

gccatcggcg tgccggancc cctgtccgtg tncgtcgact ccnacggcac cgggaccatc 60

cccgacaagg aganncgggn ganngtcaag gagaacttcg acttcaggcc agggatgatc 120

accatcaacc tcgacctcaa gaagggcggc aacaggttca tcaagaccgc cgcatacggc 180

cactttggcc gtgacgacgc cgacttcacc tgggaggngg tcaagcccct aaagaaggca 240

tccgcttaag aatgtattgg gaagttcact ggacatgagg ttcatcttcg tctggctctg 300

c 301

<210> 249
<211> 320
<212> nucleic acid
<213> Zea mays

<400> 249

caccggcgcg atccccgaca aggagatcct gaagatcgtg aaggagaact tcgacttcag 60

gcccggcatg atcatcatca acctcgacct caagaaaggc ggcaacgggc gctacctcaa 120

gacggcggcc tacgggcact ttgggaggga cgaccccgac ttcacctggg aggtggtgaa 180

gcccctcaag gcggagaagc cgtcttctgc atgaggcgcc tcctctgttt tggaagaagc 240

ttttggtctg gtctggtctg gtctggtgtg cctgcgctct atcatgcttt tttatggctc 300

ctacttgtga ttcttgatct 320

<210> 250
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 250

acttcacgaa gcggcccgag gagatcggcg cgggcgacca ngncncacat gttcgggtac 60

gccaccgacg agacccccga gctgatgccg ctgagccacg tgctggccan caagctgggc 120

gcgcgctcac cgagncacgc aagaacggca ctgcgcgtgg ctnaggccnc gacggcaaga 180

cccaggtgac ggtggagtac gtgaacgatg gcggcgccat ggtgcccgtc cgcgtgcaca 240

cgtgctcatc tncacccagc acgacganna ctnaacaacg ac 282

<210> 251
<211> 239
<212> nucleic acid
<213> Zea mays

<400> 251

cttccacctc aacccgtctg gccgcttcgt catcggcgga cctcacggcg acgctggcct 60

cactggccgg aagatcatan tccaggtctc ctacgccatc ggcgtgcccg aaacccctgt 120

cggtgttcgt ggacacgtac ggcaccggcg cgatccccga caaggagatc ctgaagatcg 180

tgaaggagaa cttcgacttc aggcccggca tgatcatcat caacctcgac ctcaagaaa 239

<210> 252
<211> 511
<212> nucleic acid
<213> Zea mays

<400> 252

gnnnnnnnga aaantctacc cngtcaggtg ccggtcanga gaattcacgg gncgacccag 60

cgtccaccac ggnggtggcg ccttctccgg caaggacccc accaaggtgg accgcagcgc 120

gcctacgtgg ccaggcaggc cgccaagagc atcgtggcca gcggcctcgc ccgccgcgcc 180

tcgtgcaggt gtcgtacgcc atcggcgtgc cggagcccct gtccgtgttc gtcaaccgta 240

cggcaacggc acgattcccg acaagggaga ttctcaaaga tcgttaagga gaaactcgaa 300

cttnaanggc cgggaanatt aagcaatcaa acctncgaac ctngaaaaaa gggcggcaac 360

aaggttnaat caaaaancgc ccgcctaagg ncaattnggc ccgttaacca acgcganttc 420

aactgggaag tggtnaaacc cctcaaattc cacaaagcat cggcttaaag gttggaattt 480

cactgtggac attaaggact aancttcctc t 511

<210> 253
<211> 234
<212> nucleic acid
<213> Zea mays

<400> 253

cnacgngtcn gaatgagcac gtcancaagc ccgtcatccc ggagaggtac ctggacgaga 60

agacnatctn ccnncnnnnn ncgtcnnggc gcttcgtcat cggcgggccc cacggggacg 120

ccggcctcac cggccgcaag atcatcatcg acacctacgg cggctgggga gcccacggcg 180

ggggcgcctt ctccggcaag gaccccacca angtggaccg cngcggggcc tact 234

<210> 254
<211> 295
<212> nucleic acid
<213> Zea mays

<400> 254

ctcttctcct ccctcctgnc gggtccttaa taaagagcag cagcgcaagg tgagccgcca 60

gcttgcccca ggttggtaga gcgagcgaga agaaggcaat ggcggcggag agcttcctgt 120

tcacgtcgga gtccgtgaac gaggggcacc cagacaagct gtgcgaccag gtgtcggacg 180

cggtgctgga cgcctgcctg gcgcaggacc ccgacagcaa ggtggcctgc gagacctgca 240

ccaagacgaa catggtgatg gtgttcggcg agatcaccac caaggcgagc gtgga 295

<210> 255
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 255

ccaanganga gancgcngcn gacctgaagg agcatgtcan caagcctgtc ancctgagc 60

agnacctnga cgagaagacc ancttccacc tnaacccanc nggccgctnt gtcattggtg 120

gaccncacgg cgatgcnggc ctcacnggcc gcaagancan catngacacc nacggtggcn 180

ggggagccca tggtggtggc gcntncnccg gcaaggaccc aaccaaggtt gaccgcagcg 240

gacctatgtc gcaaggc 257

<210> 256
<211> 206
<212> nucleic acid
<213> Zea mays

<400> 256

ggcgagatca cgaccaaggc gaccgtggac tacgagaaga tcgtgcgcga cacctgccgc 60

gagatcgggt tcacctccga cgacgtgggc ctcgacgccg accgctgcaa ggtgctggtg 120

aacatcgagc agcagtcccc cgacatcgcg cagggcgtgc acgggcactt cacgaagcgg 180

cccgaggaga tcggcgcggg cgacca 206

<210> 257
<211> 208
<212> nucleic acid
<213> Zea mays

<400> 257

agacaatctt ccacctcaac ccgtctggcc gcttcgtcat cggcggacct cacggcgacg 60

ctggcctcac tggccggaag atcatcatcg acacctacgg tggctgggga gcccacggcg 120

ggggcgcctt ctccggcaag gacccgacca aggtggaccg cagcggggcc tacgtcgcga 180

ggcaggctgc caagagcatc gtcgccgc 208

<210> 258
<211> 339
<212> nucleic acid
<213> Zea mays

<400> 258

aacgagggtg gcgccatggt tcccatccgt gtgcacacag tcctcatctc tacccagcac 60

gacgagacag tcaccaacga cgagattgct gctgacctga aggagcacgt catcaagcca 120

gtcatccccg agcagtacct cgacgagaag acaatcttcc acctcaaccc gtctggccgt 180

tcgtcatcgg cggacctcac ggcgacgcgg cctcactggc ggaagatcat catcgacacc 240

tacggtgntt gggagccacg gcggggcgct ttncggcaag gaccgncaag tggacgancg 300

gggctagtcn gagcagntgc aaganatgtc gcgcggctg 339

<210> 259
<211> 195
<212> nucleic acid
<213> Zea mays

<400> 259

caggaccccg acagcaaggt ggcctgcgag acctgcacca agaccaacat ggtgatggtg 60

ttcggcgaga tcacgaccaa ggcgaccgtg gactacgaga agatcgtgcg cgacacctgc 120

cgcgagatcg ggttcacctc cgacgacgtg ggcctcgacg ccgaccgctg caaggtgctg 180

gtgaacatcg agcag 195

<210> 260
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 260

cgtttgcctc ttctccctct tgccggtccc gaataaagag cagcagcgca agaggtcggt 60

agagcgagaa gaaggcaatg gcggccgaga gcttcctttt cacctcggag tccgtgaacg 120

aggggcaccc cgacaagctg tgcgaccagg tgtcggacgc cgtgcttgac gcatgcctcg 180

cgcaggaccc cgacagcaag gtggcctgcg agacctgcac caagaccaac atggtgatgg 240

tgttcggcga natcacgacc aaggcga 267

<210> 261
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 261

atccgtttgc ctcttctccc tcttgccggt cccgaataaa gagcagcagc gcaagaggtc 60

ggtagagcga gaagaaggca atggcggccg agagcttcct tttcacctcg gagtccgtga 120

acgaggggca ccccgacaag ctgtgcgacc aggtgtcgga cgccgtgctt gacgcatgcc 180

tcgcgcagga ccccgacagc aaggtggcct gcgagacctg caccaagacc aacatggtga 240

tngtgttcgg cgagatcacg accaangcga cc 272

<210> 262
<211> 335
<212> nucleic acid
<213> Zea mays

<400> 262

gcggactaat gtcgcaaggc aggctgccaa gagcatcgtc gccagcggcc ttgctcgccg 60

cgccatcgtc caggtgtctt acgccatcgg gtgcccgagc ctctctccgt gttcgtcgac 120

acgtacggca ccggcgcgat ccccgacaag gagatcctca agattgtcaa ggagaactcg 180

atttcaggcc tggcatgatc atcatcaacc ttgacctcaa gaaaggcggc aacgggcgct 240

actcaagagn gcggctacgg ccactttgga agggacgacc tgattcacct gggaggtggt 300

gaagccattc aatcggagaa actttgctaa gcggc 335

<210> 263
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 263

cacacatccg tttgcctctt ctccctcttg ccggtcccga ataaagagca gcagcgcaag 60

aggtcggtag agcgagaaga aggcaatggc ggccgagagc ttccttttca cctcggagtc 120

cgtgaacgag gggcaccccg acaagctgtg cgaccaggtg tcggacgccg tgcttgacgc 180

atgcntcgcg caggaccccg acagcaaggt ggcctgcgag acctgcacca agaccaacat 240

ggtgatggtg ttcggcgaga tcacgaccaa 270

<210> 264
<211> 246
<212> nucleic acid
<213> Zea mays

<400> 264

gatctcgtcg gactcggatc cgcccgacca ccccgcgccg ccgcagatca aagaagatgg 60

cagctgtcga cacattcctc ttcacctcgg agtctgtgaa cgagggacac cctgacaagc 120

tctgtgacca ggtctcagat gccgttcttg acgcttgcct tgctgaggac cctgacagca 180

aggttgcttg tgagacctgc acaaagacaa acatggtcat ggtctttggt gagatcacca 240

ccaagg 246

<210> 265
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 265

ctcttctccc tcttgccgnt cccgaataaa gagcagcagc gcaagaggtc ggtagagcga 60

gaagaaggca atggcggccg agagcttcct tttcacntcg gagtccgtga aanangggca 120

cnccgacaag ctgtgcgacc aggtgtcgga cgccgtgctt gacgcatgcc tcgcgcagga 180

ccccgacagc aaggtggcct gcgagacctg caccaagacc aacatggtga tggtgttcgg 240

cgagatcacg accaaggcga ccg 263

<210> 266
<211> 295
<212> nucleic acid
<213> Zea mays

<400> 266

cgcctcgacc ggatctcgtc ggactcggat ccgcccgacc accccgcgcc gccgcagatc 60

aaagaagatg gcagctgtcg acacattcnc tcttcacctn nggagtctgt gaacgaggga 120

caccctgaca agctctgtga ccaggtctca gatgccgttc ttgacgcttg ccttgctgag 180

gaccctgaca gcaaggttgc ttgtgagacc tgcaccaaga ccaacatggt catggtcttt 240

ggtgagatca ccaccaaggc caatgttgac tacgagaaga ttgtcaggga gacct 295

<210> 267
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 267

gccgcaacat tggtttcgtg tcgaacgatg tcgggcttga cgctgaccac tgcaaggtgc 60

ttgtgaacat tgagcagcag tcccctgata ttgctcaggg tgtgcacggc cacttcacca 120

agcgccccga ggagattgga gtggtgacca ggggcacatg tttgggtatg cgactgacga 180

gacccctgag ctgatgcccc tcagccatgt cttgccacca acttggtgct cgtctcacgg 240

agttcgccaa gaatggaact gccctggcna agcccgatgg aagaccag 288

<210> 268
<211> 254
<212> nucleic acid
<213> Zea mays

<400> 268

gtcatcggcg gnnctcacgg ccgacgctgg cctcactggc cggaagatca tcatcganac 60

ctcncggtgg ctggggagcc cacggcgggg gcgccttctc cggcaaggnc ccgaccaagg 120

tggaccgcag cggggcctac gtcgcgaggc aggctgccaa nagcatcgtc gccgccggcc 180

taacccgccg cgncnttgtc caggtctnct acgccatcgg ntnacccgag ccccttcgg 240

tgttcgtgga cacg 254

<210> 269
<211> 525
<212> nucleic acid
<213> Zea mays

<400> 269

gggngnaggg ttttgtanng ntnnnnggga tnganngttt accggttcgg aattcccggg 60

tcgacccacg cgtccgccca cgcgtccgcc cacgcgtccg cccacgcgtc cgcccacgcg 120

tccggtcgga tctgggacga gacgagacga tcccngcctc ccctcaaccg gaacttgttt 180

taccccatct catcccactg actccaccca cccacccgcc cgctgcctcc gccggatctc 240

gtcggactcg gatccgcccg accacgacca ccccgcgttg ncgccgcgca gcagcagcag 300

atcagagaag atggccggac tcgacacctt cctcttcacc tcggagtccg tgaacgaggg 360

acaccctgac aagctctgcg accaggtctc agatgctgtt ctggacgctt gccttgctga 420

ggaccctgac agcanggttg cttgcgagac ctgcaccaag accaacatgg tcatggcttt 480

ggtgagatca ccacccaagn caatgntgac tttttnaana ntttg 525

<210> 270
<211> 312
<212> nucleic acid
<213> Zea mays

<400> 270

ctgaagatcg tgaaggagaa cttcgacttc aggcccggca tgatcatcat caacctcgac 60

ctcaagaaag gcggcaacgg gcgctacctc aagacggcgg cctacgggca ctttgggagg 120

gacgaccccg acttcacctg ggaggtggtg aagcccctca aggcggagaa gccgtcttct 180

gcatgaggcg cctcctctgt tttggaagaa gcttttggtc tggtctggtc tggtctggtg 240

tgcctgcgct ctatcatgct tttttatggc tcctacttgt gattcttgat ctgccccttg 300

cttatcattg ta 312

<210> 271
<211> 227
<212> nucleic acid
<213> Zea mays

<400> 271

gngagnccac ggcngggggcg ccttctccgg caaggacccg accaaggtgg accgcagcgn 60

ggccnacntc gcgaggcagn ctgccaanag catcgtcgcc gccggcctcn cncgccgcgc 120

cattgtccag gtctcctacg ccatcggcgt gcccgagccc ctttcggtgt tcgtggacac 180

gtacggcacc ggcgcgatcc ccgacaagga gatcctgaag ancgtgg 227

<210> 272

<211> 234
<212> nucleic acid
<213> Zea mays

<400> 272

gcagcgcaag angttggtag agcgagcgag nngaaggcaa tggcggcgga gagcttcctg 60

ttcacctcgg ngtccgtgaa cgaggggcac ccagacaagc tgtgcgacca ggtgtcggnc 120

gcggtgctgg acgcctgcct ggcgcaggac cccgacagca aggtggcctg cgagacctgc 180

accaagacga acntngtgat ggtgttcggc gagatcncca ccaaggcgag cgtg 234

<210> 273
<211> 239
<212> nucleic acid
<213> Zea mays

<400> 273

cgatgagacc cctgagttga tgcccctcag ccatgtcctt gcagtggtcg gcgtcaagcc 60

caacatcgtt tgacacaaaa ccaatgttgc ggcaggtctc cctgacaatc ttctcgtagt 120

caacattggc cttggtggtg atctcaccaa agaccatgac catgttggtc ttggtgcagg 180

tctcacaagc aaccttgctg tcagggtcct cagcaaggca agcgtcaaga acggcatct 239

<210> 274
<211> 245
<212> nucleic acid
<213> Zea mays

<400> 274

ccctcttgcc ggtcccgaat aaagagcagc agcgcaagag gtcggtagag cgagaagaag 60

gcaatggcgg ccgagagctt ccttttcacc tcggagtccg tgaacgaggg gcaccccgac 120

aagctgtgcg accaggtgtc ggacgccgtg cttgacgcat gcctcgcgca ggaccccgac 180

agcaaggtgg cctgcgagac ctgcaccaag accaacatgg tgatggtgtt cggcgagatc 240

acgac 245

<210> 275
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 275

cgtttgcctc ttctccctct tgccggtccc gaataaagag cagcagcgca agaggtcggt 60

agagcgagaa gaaggcaatg gcggccgaga gcttcctttt cacctcggag tccgtgaacg 120

aggggcaccc cgacaagctg tgcgaccagg tgtcggacgc cgtgcttgac gcatgcctcg 180

cgcaggaccc cgacagcaag gtggcctgcg agacctgcac caagaccaac catggtgatg 240

gtgttcggcg agatcacgac caaggcga 268

<210> 276
<211> 228
<212> nucleic acid
<213> Zea mays

<400> 276

ctcacggcga tgctggcctc actggccgca agatcatcat tgacacctac ggtggctggg 60

gagcccatgg tggtggcgct ttctccggca aggacccaac caaggttgac cgcagcggag 120

cctatgtcgc aaggcaggct gccaagagca tcgtcgccag cggccttgct cgccgcgcca 180

tcgtccaggt gtcttacgcc atcgggtgcc cgagcctctc tccgtgtt 228

<210> 277
<211> 253
<212> nucleic acid
<213> Zea mays

<400> 277

gatcgctgct gacctgaagg agcatgtcat caagcctgtc atccctgagc agtaccttga 60

cgagaagacc atcttccacc ttaacccatc tggccgcttt gtcattggtg gacctcacgg 120

cgatgctggc ctcactggcc gcaagatcat cattgacacc nacggtggct ggggatcccn 180

nnggggtggc cttttctcgg aagagggcna aacnaaggtg gncgtagtgg tntttnntga 240

aanggtagnn tgc 253

<210> 278
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 278

ccgttcgcct cttctcctcc ctcctgccgg gtccttaata aagagcagca gcgcaagagg 60

ttggtagagc gagcgagaag aaggcaatgg cggcggagag cntcctgttc acctcggagt 120

ccgtgaacga ggggcaccca gacaagctgt gcgaccaggt gtcggacgcg gtgctggacg 180

cctgcctggc gcaggacccc gacagcaagg tggcctgcga gacctgcacc aagacgaaca 240

tggtgatggt gttcggcgag atcaccac 268

<210> 279
<211> 218
<212> nucleic acid
<213> Zea mays

<400> 279

cccgaccaag gtggaccgca gcggggccta cgtcgcgagg caggctgcca agagcatcgt 60

cgccgccggc ctcgcccgcc gcgccatcgt ccaggtctcc tacgccatcg ggtgcccgag 120

cccctatcgg tgttcgtgga cacgtacggc ancggcgcga tccccgacaa ggagatcctg 180

aagatcgtga aggagaactt cgacttcaag cccggcat 218

<210> 280
<211> 314
<212> nucleic acid
<213> Zea mays

<400> 280

gccggtcccg aataaagagc agcagcgcaa gaggtcggta gagcgagaag aaggcaatgg 60

cggccgagag cttccttttc accttcggag tccgtgaacg aggggcaccc cgacaagctg 120

tgcgaccagg tgtcggacgc cgtgcttgac gcatgcctcg cgcaggaccc cgacagcaag 180

gtggctgcga gactgcacaa gaccaacatg gtgatggtgt tcggcgagat cacgaacaan 240

gcgacgtgga ctacgagaag atcgtgcgcg acacctgccc gcgagatcgg gttcacctcc 300

gacgacgtgg gctc 314

<210> 281
<211> 216
<212> nucleic acid
<213> Zea mays

<400> 281

ctccggcaag gacccgacca aggtggaccg cagcggggcc tacgtcgcga ggcaggctgc 60

caagagcatc gtcgccgccg gcctcgcccg ccgcgccatt gtccaggtct cctacgccat 120

cgggtgcccg ancccctttc ggtgttcgtg gacacgtacg gcaccggcgc gatccccgac 180

aaggagatcc tgaagatcgt gaaggagaac ttcgac 216

<210> 282
<211> 289
<212> nucleic acid
<213> Zea mays

<400> 282

ggccgctttg tcattggtgg acctcacggc gatgctggcc tcactggcng caagatcatc 60

attgacacct acggtggctg gggagcccat ggtggtggcg ctttctccgg caaggaccca 120

accaaggttg accgcagcgg acctatgtcg caaggcaggc tgccaagagc atcgtcgcca 180

gcggccttgc tcgccgcgcc atcgtccagn tgtcttacgc cannggtgc nngancctct 240

ctccgtgttc gaaaanannn anngcnnggn nntcccccaa nggtttnct 289

<210> 283
<211> 247
<212> nucleic acid
<213> Zea mays

<400> 283

ctccctcttg ccggtcccga ataaagagca gcancgcaag aggtcggtag agcgagaaga 60

aggcaatggc ggccgagagc ttccttttca cctcggagtc cgtgaacgag gggcaccccg 120

acaagctgtg cgaccaggtg tcggacgccg tgcttnangc atgcctcgcg caggaccccg 180

acagcaaggt ggcctgcgag acctgcacca agaccaacat ggtgatggtg ttcggcgaga 240

tcacgac 247

<210> 284
<211> 275
<212> nucleic acid
<213> Zea mays

<400> 284

cgtttgcctc ttctccctct tgccggtccc gaataaagag cagcagcgca agaggtcggt 60

agagcgagaa gaaggcaatg gcggccgaga gcttcctttt cacctcggag tccgtgaacg 120

aggggcaccc cgacaagctg tgcgaccagg tgtcggacgc cgtgcttgac gcatgcctcg 180

cgcaggaccc cgacagcaaa gttgctgcga aanctgcacc aagancaaca tggtgatggt 240

gttcggcgag atcacgacca aggggaccgt ggatt 275

<210> 285
<211> 255
<212> nucleic acid
<213> Zea mays

<400> 285

cctcttctcc tccctcctgc cgggtcctta ataaagagca gcagcgcaag aggttggtag 60

agcgagcgag aagaaggcaa tggcggcgga gagcttcctg ttcacctcgg agtccgtgaa 120

cgaggggcac ccagacaagc tgtgcgacca ggtgtcggac gcggtgctgg acgcctgcct 180

ggcgcaggac cccgacagca aggtggcctg cgagacctgc accaagacga acatggtgat 240

ggtgttcggc gagat 255

<210> 286
<211> 221
<212> nucleic acid
<213> Zea mays

<400> 286

gggagcccac ggcgggggcn ccttcnccgg caaggacccg accaaggtgg accgcagcgg 60

ggcctacgtc ncnaggcagg cngccaagag catcgtcncc nccggcctcg cccnccgcnc 120

cattgtccag gtctcctacg ccatcgnctg cccnagcccc tttcggtgtt cgtggacacn 180

tacggcaccg gcgcgatccc cnacaaggag atcctgaaga t 221

<210> 287
<211> 216
<212> nucleic acid
<213> Zea mays

<400> 287

ctctacccag cacgacgaga cagtcaccaa cgacgagatt gctgctgacc tgaaggagca 60

cgtcatcaag ccagtcatcc ccgagcagta cctcgacgag aagacaatct tccacctcaa 120

cccgtctggc cgcttcgtca tcngcggacc tcacggcgac gctggnctnn ctgnnncggn 180

agatcatcat cgacacctan ggttgctggg gagcca 216

<210> 288
<211> 292
<212> nucleic acid
<213> Zea mays

<400> 288

cgtacgtgtc gacacgtacg gcaccggcgc gatccccgac aagganatcc ttcaagattg 60

tcaaggagaa cttcgatttc aagcctggca tgatcatcat caaccttgac ctcaagaaag 120

gcggcaacgg gcgctacctc aagacggcgg cctacggcca ctttggaagg gacgaccctg 180

acttcacctg ggaggtggtg aagccacttc aagtcggaga aaccttctgc ctaaggcggc 240

ctttttttca gtaagaagct tttggtggtc tgctgtgctt aatcagcttt ta 292

<210> 289
<211> 276
<212> nucleic acid
<213> Zea mays

<400> 289

gagaacttcg acttcaggcc cggcatgatc atcatcaacc tcgacctcaa gaaaggcggc 60

aacgggcgct acctcaagac ggcggcctac gggcactttg ggagggacga ccccgacttc 120

acctgggagg tggtgaagcc cctcaaggcg gagaagccgt cttctgcatg aggcgcctcc 180

tctgtttcgg aagaagcttt tggtctggtc tgcctgcgct ctatcatgct tttttatggc 240

tcctacgtgt tgtgattctt gatctgcccc ttgctt 276

<210> 290
<211> 219
<212> nucleic acid
<213> Zea mays

<400> 290

cgccatcggc gtgccggagc ccctgtccgt gttcgtcaac tcgtacggca ccggcacgat 60

ccccgacaag gagatcctca agatcgtgaa ggagaacttc gacttcangc ccgggatgat 120

cagcatcaac ctcgacctga agaagggcgg caacaggttc atcaagaccg ccgcctacgg 180

ccattcggcc gtgacgacgc cgacttcact gggagtggt 219

<210> 291
<211> 191
<212> nucleic acid
<213> Zea mays

<400> 291

catgccgcaa cattggtttc gtgtcgaacg atgtcgggct tgacgctgac cactgcaagg 60

tgcttgtgaa cattgagcag cagtcccctg atattgctca gggtgtgcac ggccacttca 120

ccaagcgccc cgaggagatt ggagctggtg accaggggca catgtttggg tatgcgactg 180

acgagacccc t 191

<210> 292
<211> 315
<212> nucleic acid
<213> Zea mays

<400> 292

gacgagacga gttaccatct catcccaact ccggaacgaa caagttacca tctcatccca 60

actccgcctc gaccggnncn cgtcggactc gganccgccc gaccaccccg cgccgccgca 120

gatcaaagaa gatggcagcn gtcgacacat tcctcttcac ctcggagtct gtgaacgagg 180

gacaccctga caagcnctgt gaccaggtct cagatgccgt tcttgacgct tgccttgnng 240

aggaccctga cagcaaggtt gcttgtgaga cctgcaccaa gaccaacatg gtcatggtct 300

ttggtgagan nacca 315

<210> 293
<211> 501
<212> nucleic acid
<213> Zea mays

<400> 293

agagcatcgn ggccagcggc ctcgcccgcc gctgcctngt gcaaggtgtc ctancccant 60

nggngtgccg gaacccctgt caatgntcgg cganttctac ggcaccggga ccatncccga 120

caaggagatc ctcaagatcg tcaaggagaa cttcgacttc aggccccggg atnatcacca 180

tcaacctcga cctcaanaaa gggcggcaac aggttcatca agaccgccgc atacngncac 240

tttggcccgt gacgancnca ctttacctgg gaagtggtca atcccctaaa gaaagccatn 300

ccncttaaga atgtanttgg naagtttact tggacatgaa gttcattctt ngtctngctt 360

ctgctgatnc cctnnaanga ttgcttgntn cttgcttgcc cctngattgt ntgttttgan 420

caantgantt ngcttgntct tgttccatnt gaaaaaccnn attaatngtg gnccntttgg 480

tgaaaaaaag ntttngccna t 501

<210> 294
<211> 281
<212> nucleic acid
<213> Zea mays

<400> 294

gcctcttctc ctccctcctg ccgggtcctt aataaagagc agcagcgcaa gaggttggta 60

gagcgagcga gaagaaggca atggcggcgg agagcttcct gttcacctcg gagtccgtga 120

acgaggggca cccagacaag ctgtgcgacc aggtgtcgga cgcggtgctg gacgcctgcc 180

tggcgcagaa ccccgacagc aagtggcctg cgagacctgc accaagacga acatggtgat 240

ggtgttcggc gaantcacca ccagggnagn tggatacgaa t 281

<210> 295
<211> 486
<212> nucleic acid
<213> Zea mays

<400> 295

gggnanttnt tnnagncctt cnacgcgnnc agtaccggtc acagaattcc cgggncgacc 60

acgcgtccnc ggacgcgtgg gcgacaagga gatcctcang atcgtgaagg agannttcac 120

ttcaggcccg ggatgatcag catcaacctc gacctgaaga agggcggcaa caggttctca 180

agaccgccgc ctacggccac ttcggccgtg acnacgccga cttcacctgg gaggtgtgaa 240

gcccctcaag ttcgacaagg catcggctta aggttgggan tgtcactgtg gacataggac 300

taccttcctc tggctctgct gttacctgca agcattgctg ctgctggatg tgtggtttga 360

tcagtgactg gctgctgctc catagaagat gaacggagag aaggatgatg aangctttgg 420

caatcgcccg ctgcaactgc aacccatgcc atgccggctt aatgattggg taaattttgg 480

cttnca 486

<210> 296
<211> 173
<212> nucleic acid
<213> Zea mays

<400> 296

tacgtcgcca ggcaggccgc caagagcatc gtggccagcg gcctcgcccg ccgctgcctc 60

gtgcaggtgt cctacgccat cggcgtgccg gagcccctgt ccgtgttcgt cgactcctac 120

ggcaccggga ccatccccga caaggagatc ctaaagatcg tcaaggagaa ctt 173

<210> 297
<211> 278
<212> nucleic acid
<213> Zea mays

<400> 297

cgcctcttct cctccctcct gccgggtcct taataaagag cagcagcgca agaggttggt 60

agagcgagcg agaagaaggc aatggcggcg gagagcttcc tgttcacctc ggagtccgtg 120

aacgaggggc acccagacaa gctgtgcgac caggtgtcgg acgcggtgct ggacgcctgc 180

ntggcgcagg accccgacag caaggtggcc tgcnatncct ncacnangac gaacatggtg 240

atggtgttcg gcgaaatcac cncnantgcg acntngac 278

<210> 298
<211> 309
<212> nucleic acid
<213> Zea mays

<400> 298

ggcgtgccgg agcccctgtc cgtgttcgtc gactcctacg gcaccgggac catccccgac 60

aaggagatcc taaagatcgt caaggagaac ttcgacttca ggccagggat gatcaccatc 120

aacctcgacc tcaagaaggg cggcaacagg ttcatcaaga ccgccgcata cggccacttt 180

ggcntgacga cgccgacttc acctgggagg tggtcaagcc cctaaagaag gcatccgctt 240

aagaatgtat tgggaagttc actggacatg aggttcatct tcgtctggct ctgctgatac 300

ctgcaagat 309

<210> 299

<211> 197
<212> nucleic acid
<213> Zea mays

<400> 299

gggagaccng ccgcaacatt ggttttgtgt caaacgatgt tgggcttgac gccgaccacn 60

gcaaggtgct cgtgaacatt gagcagcagt cccctgatat tgctcagggt gtgcatggcc 120

acttcaccaa gcgccccgag gagattggag ctggtgacca gggacacatg ttcgggtatg 180

cgaccgatga gacccct 197

<210> 300
<211> 253
<212> nucleic acid
<213> Zea mays

<400> 300

cgtttgcctc ttctccctct tgccggtccc gaataaagag cagcagcgca agaggtcggt 60

agagcgagaa gaaggcaatg gcggccgaga gcttcctttt cacctcggag tccgtgaacg 120

aggggcaccc cgacaagctg tgcgaccagg tgtcggacgc cgtgcttgac gcatgcctcg 180

cgcaggaccc cgacagcaag gtggctgcga gacctgcacc nagaccaaca tggtgatngt 240

gttcggcgag atc 253

<210> 301
<211> 302
<212> nucleic acid
<213> Zea mays

<400> 301

cgtgaaacga ggggacaccc tgacaagctc tgcgaccagg tctcagatgc tgttctggac 60

gcttgccttg ctgaggaccc tgacagcaag ttgcttggag acctgcacca agaccaacat 120

ggtcatggtc tttggtgaga tcaccaccaa ggccaatgtc gactacgaga agattgtcag 180

gggagacatg ccgcaaaatt ggtttcgngt naganngatg tggggcttga ngntgaccac 240

ngcanggtgn tnatanaaan ttngnagnan tnccctgtat ttgcgcnggg gggnncnccc 300

nc 302

<210> 302

<211> 460
<212> nucleic acid
<213> Zea mays

<400> 302

cgccgccggc ctcgcccgcc gcgccatcgt ccaggtctcc tacgccatcg gcgtgcccga 60

gcccctatcg gtgttcgtgg acacgtacng gancngngcn annccgacn agggnaatcn 120

tganaatngn anaagganaa nttnanantn caggcccggt tgatcattat naacctagac 180

ctcaanaaag gcggaaacgg gcnctaccta aagacggggg tctacgggcn ctttgngagg 240

gacgaccgag anttcacctg agaggtggna aagcccctca aggcggaaaa gccgtcttct 300

gcatgaggcg cctcctctgt ttcngaagaa gcttttggtc tggtctgcct gcgctctatc 360

atgctttttt atggctncta cgtgttgtga ttcttgatct gccccttgct tatcatttgt 420

actgtactgt cactgtccta ataagtggta cgtgtgcggg 460

<210> 303
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 303

gtctatgtng caangnacgc tgcnaagagc atngtcnccc agcggccttg ctcgcngcgc 60

natngnccca ggtgtattat cgccatccgg cnngncngng cntctcnccg tgttcgtcga 120

cacgtacggc accggcgcga tccccgacaa ggngnncnct gaagattgta caaggagaac 180

ttcgatttca ggcctggcat gatcatnnnc aaccttganc tcaagaaagg nggcaacggg 240

cgctacctca agacggcggc ctacggcnac tttggaaggg acgaccctga cttcacc 297

<210> 304
<211> 259
<212> nucleic acid
<213> Zea mays

<400> 304

cggatctgag acgagacgag ttaccatctc atcccaactc cggaacgaac aagttaccat 60

ctcatcncaa ctccgtctca ccgaggtccg caagaacgga acctgcccct ggctcaggcc 120

tgatgggaag acccaggtga cagtcgagta ccgcaatgag ggtggtgcca tggtccccat 180

ccgtgtccac accgtcctca tctccaccca gcacgacgag acagtgacca atgatgagat 240

cgctgctgac ctgaaggag 259

<210> 305
<211> 244
<212> nucleic acid
<213> Zea mays

<400> 305

cttctcctcc ctcctgccgg gtccttaata aagagcagca gcgcaagagg ttggtagagc 60

gagcgagaag aaggcaatgg cggcggagag cttcctgttc acctcggagt ccgtgaacga 120

ggggcaccca gacaagctgt gcgaccaggt gtcggacgcg gtgctggacg cctgcctggc 180

gcaggacccc gacagcaagg tggcctgcga nacctgcacc aagacgaaca tggtgatggt 240

gttc 244

<210> 306
<211> 236
<212> nucleic acid
<213> Zea mays

<400> 306

cgtcggactc ggatccgccc gaccacgacc accccgcgcc gccgccgcgc acagcagcag 60

atcagagaag atggccggac tcgacacctt cctcttcacc tcggagtccg tgaacgaggg 120

acaccctgac aagctctgcg accaggtctc agatgctgtt ctggacgctt gccttgctga 180

ggaccctgac agcaaggttg cttgcgagac ctgcaccaag accaacatgg tcatgg 236

<210> 307
<211> 310
<212> nucleic acid
<213> Zea mays

<400> 307

cccagcacga cgagacagtc accaacgacg agattnctgg gtagagatga ggactgtgtg 60

cacacggatg ggaaccatgg cgccaccctc atctctaccc agcacnacga gacagtcacc 120

aacgacgaga ttgctgctga cctgaaggag cacgtcatca agccagtcat ccccgagcag 180

tacctcgacg agaagacaat cttacacctc aacccgtctg gccgcttcgt catcggcgga 240

cctcacggcg aggtgggcnt nactggccgg angatntcat cganannagg tgtttgggga 300

nccacggggg 310

<210> 308
<211> 185
<212> nucleic acid
<213> Zea mays

<400> 308

cctgacagca aggttgcttg cgagacctgc accaagacca acatggtcat ggtctttggt 60

gagatcacca ccaaggccaa tgtcgactac gagaagattg tcagggagac atgccgcaac 120

attggtttcg tgtcgaacga tgtcgggctt gacgctgacc actgcaagtg cttgtgaaca 180

ttgag 185

<210> 309
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 309

ccgtttgcct cttctccctc ttgccggtcc cgaataaaga gcagcagcgc aagaggtcgg 60

tagagcgaga agaaggcaat ggcggccgag agcttccttt tcacctcggg agtccgtgaa 120

cgaggggcac cccgacaagc tgtgcgacca ggtgtcggac gccgtgcttg acgcatgcct 180

cgcgcaggac cccgacagca aggtggcctg cgagacctgc accaagacca acatggtgat 240

ggtgttcggc gagatcacga ccaaggcgac cg 272

<210> 310
<211> 231
<212> nucleic acid
<213> Zea mays

<400> 310

ctcttctccc tcttgccggt cccgaataaa gagcagcagc gcaagaggtc ggtagagcga 60

gaagaaggca atggcggccg agagcttcct tttcacctcg gagtccgtga acgaggggca 120

ccccgacaag ctgtgcgacc aggtgtcgga cgccgtgctt gacgcatgcc tcgcgcagga 180

ccccgacagc aaggtggcct gcgagacctg caccaagacc aacatggtga t 231

<210> 311
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 311

gtcggatctg agacgagacg agtcccctcg cntcacccaa ccggaacgaa caagttacca 60

tctcatccca accccgcctg cgaccggntg tcgtcggact cggntccgcn cgaccacccc 120

gcgccgccgc agatcaaaga agatggcagc tctcgacacc ttcctcttca cctcggagtc 180

tgtgaacgag ggacaccctg acaagctctg cgaccaggtc tcagatgccg ttcttgacgc 240

ttgcnttgct gaggaccctg acagcaaggt tgcttgtgag acctgcacca agaccaacat 300

ggtcatg 307

<210> 312
<211> 260
<212> nucleic acid
<213> Zea mays

<400> 312

catccatccc cgttcgcctc ttctcctccc tcctgccggg tccttaataa agagcagcag 60

cgcaagaggt tggtagagcg agcgagaaga aggcaatggc ggcggagagc ttcctgttca 120

cctcggagtc cgtgaacgag gggcacccag acaagctgtg cgaccaggtg tcggacgcgg 180

tgctggacgc ctgcctggcg caggaccccg acagcaaggt ggcctgcgag acctgcacca 240

agacgaacat ggtgatggtg 260

<210> 313
<211> 305
<212> nucleic acid
<213> Zea mays

<400> 313

tgagacgaga cgagttacca tctcatccca actccggaac gaacaagtta ccatctcatc 60

ccaactccgc ctcgaccgga tctcgtcgga ctcggatccg cccgaccacc ccgcgccgcc 120

gcagatcaaa gaagatggca gctgtcgaca cattcctctt cacctcggag tctgtgaacg 180

agggacaccc tgacaagctc tgtgaccagg tctcagatgc cgttcttgac gcttgccttg 240

ctgaggaccc tgacagcaag gttgcttgtg agacctgcac caagacaaca tggtcatggt 300

ctttg 305

<210> 314
<211> 237
<212> nucleic acid
<213> Zea mays

<400> 314

gaagattntc atggatacct gccgcancat tngntttgtg atcanacgat gctgggnttg 60

acgccnacca ctgnaaggtg cncgtgaana ttgatcanca gtcncctgat attgctcang 120

gtntncatgg ccacttcacc aagcgccccg aggagattgg agctggngac cagggacaca 180

tgttcgggta tgctaccnan tagacccntg agttgatgcc cctcagccat gtccttg 237

<210> 315
<211> 280
<212> nucleic acid
<213> Zea mays

<400> 315

tctcatccca ctgactccgn ccacccaccc gcccgctgcc tccgccggat ctcgtcggac 60

tcggatccgc ccgaccacga ccaccccgcg ccgccgccgc gcagagcagc agatcagaga 120

agatggccgg actcgacacc ttcctcttca cctcggagtc cgtgaacgag ggacaccctg 180

acaagctctg cgaccaggtc tcagatgctg ttctggacgc ttgccttgct gaggaccctg 240

acagcaaggt tgcttgcgag acctgcacca agaccaacat 280

<210> 316
<211> 269
<212> nucleic acid
<213> Zea mays

<400> 316

cgtgaaggag aacttcgact tcaggcccgg gatgatcagc atcaacctcg acctgaagaa 60

gggcggcaac aggttcatca agaccgccgc ctacggccac ttcggccgtg acgacgccga 120

cttcacctgg gaggtggtga agcccctcaa gttcgacaag gcatcggctt aaggttggga 180

gtgtcactgt ggacatgagg actaccttcc tctggctctg ctgttacctg caagcattgc 240

tgctgctgga tgngtgtgtt tgatcatga 269

<210> 317
<211> 229
<212> nucleic acid
<213> Zea mays

<400> 317

ccgacaagga gatcctaaag atcgtcaagg agaacttcga cttcaggcca gggatgatca 60

ccatcaacct cgacctcaag aagggcggca acaggttcat caagaccgcc gcatacggcc 120

actttggccg tgacgacgcc gacttcacct gggaggtggt caagccccta aagaaggcat 180

ccgcttaaga atgtattggg aagttcatgg acatgaggtt catcttcgt 229

<210> 318
<211> 418
<212> nucleic acid
<213> Zea mays

<400> 318

tatcatcgtn nccagctgnc tctnccncnn ggngcctttn gcaagtntcc tangccatcg 60

ncgtgccnga nccccctgtcc ntgttcgtcg actcctacng naccnggacc atncccgaca 120

aggagatcct aaagatcttc aaggagaact tcnacttcan gccanggatg atcaccatca 180

acctcgacct caagaaggnc ggcaacaggt tcatcaagac cgncnnatac ggcactttng 240

ccgtgacgac tcctacttca cctgagaagt ggtcaaaccc ctaaagaaag cattcnctta 300

aaaatgtatt nggaanttna actggacatt atgttcatnt ttcntcttgg ttcttctnat 360

acctgcaaag attgctgntt cttctntccn nccttggatg tgtgtttgan caatgant 418

<210> 319
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 319

acgccatcgg cgtgccggag cccctgtccg tgttcgtcga cacctacggc accgnngacc 60

atccccgaca aggagatcct aaagatcgtc aaggagaact tcgacttcag gccagggatg 120

atcaccatca acctcgacct cnagaagggn ggcaacnggn tcntnaagan cggnggaana 180

ggctatttgg ncgtgaangg ntcggattca ncctggtggg gtggtaannc cctnaaangn 240

gnnnncctgt tnnaagnttt tggggag 267

<210> 320
<211> 179
<212> nucleic acid
<213> Zea mays

<400> 320

cccctggctc aggcccgatg ggaagaccca ggtgacantg gagtaccgca acgagggtgg 60

cgccatggtt cccatccgtg tgcacacagt cctcatctct acncagcacg acgagacagt 120

caccaacgac gagattgctg ctgacctgaa ggagcacgtc atcaagccag tcatccccg 179

<210> 321
<211> 280
<212> nucleic acid
<213> Zea mays

<400> 321

cttcacgatc ttgaggatct ccttgtcggg gatcgtgccg gagaacttcg acttcaggcc 60

cgggatgatc agcatcaacc tcgacctgaa gaagggcggc aacaggttca tcaagaccgc 120

cgcctacggc cacttcggcc gtgacgacgc cgacttcacc tgggaggtgg tgaagcccct 180

caagttcgac aaggcatcgg cttaaggttg ggagtgtcac tgtggacatg aggactacct 240

tcctctggct ctgctgttac ctgcaagcat tgctgctgct 280

<210> 322
<211> 294
<212> nucleic acid
<213> Zea mays

<400> 322

ctcttctccc tcttgccggt cccgaataan gagcagcagc gcnagaggtc ggtagagcga 60

gangnaggca atggcggccg agngttcctt ttcaaccttc ggagtccgtg aacgnggggc 120

nccccgaaca agctgtgcga ccaggtgtcg gacgccgtgc ttgatgcatg cctcgcgcng 180

gancccgac agcnaggtgg cctgcgagat ctgcaccaag accaacatgg tgatggtgtt 240

cggcgagatc acgatcaagg cgancgtgga ctacgngaag atcgtgcgcg acac 294

<210> 323
<211> 280
<212> nucleic acid
<213> Zea mays

<400> 323

ggggagccca tggtggtggc gctttctccg gncaccgtag gtgtncaatg atgatcttgc 60

ggccagtgag gccatcattg acacctacgg tggctgggga gcccatngtg gtggcgcttt 120

ctccggcaag gacccaacca aggttgaccg cagcggagcc tatgtcgcaa ggctggctgc 180

caagagcatc gttcgccagc ggccttgctn cgccgcgcca tcgtccaggt gtcttacgcc 240

atcggntggc ccgagcctct ctccgtgttc gtcgacacta 280

<210> 324
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 324

ccgttcgcct ctttctcctc cctcctgccg ggtccttaat aaagagcagc agcgcaaggt 60

gagccgccag cttgccccag gttggtagag cgagcgagaa gaaggcaatg gcggcggaga 120

gcttcctgtt cacctcggag tccgtgaacg aggggcaccc agacaagctg tgcgaccagg 180

tgtcggacgc ggtgctggac gcctgcctgg cgcaggaccc cgacagcaag tggctgcgag 240

acctgcacca agacgaacat ggtgatggtg ttc 273

<210> 325
<211> 215
<212> nucleic acid
<213> Zea mays

<400> 325

ctccctcttg ccggtcccga ataaagagca gcagcgcaag aggtcggtag agcgagaaga 60

aggcaatggc ggccgagagc ttccttttca cctcggagtc cgtgaacgag gggcaccccg 120

acaagctgtg cgaccaggtg tcggacgccg tgcttgacgc atgcctcgcg caggaccccg 180

acagcaaggt ggcctgcgag acctgcacca agacc 215

<210> 326

<211> 291
<212> nucleic acid
<213> Zea mays

<400> 326

gggagaactt cgacttcagg cccgggatga tcagcatcaa cctcgacctg aagaagggcg 60

gcaacaggtt catcaagacc gccgcctacg gccacttcgg ccgtgacgac gccgacttca 120

cctgggaggt ggtgaagccc ctcaagttcg acaaggcatc ggcttaaggt tgggagtgtc 180

actgtggaca tgaggactac cttcctctgg ctctgctgtt acctgcaagc attgctgctg 240

ctggatgtgt gtgtttgatc agtgactggc tgctgctcca tagaagatga a 291

<210> 327
<211> 173
<212> nucleic acid
<213> Zea mays

<400> 327

ggtgagatca ccaccaaggc caatgtcgac tacgagaaga ttgtcaggga gacatgccgc 60

aacattggtt tcgtgtcgaa cgatgtcggg cttgacgctg accactgcaa gtgcttgtga 120

acattgagca gcagtcccct gatattgctc agggtgtgca cggccacttc acc 173

<210> 328
<211> 156
<212> nucleic acid
<213> Zea mays

<400> 328

angaggggca ccccgacaag ctgtgcgacc aggtgtcgga cgccgtgctt gacgcatgcc 60

tcgcgcagga ccccgacagc aaggtggcct gcgagacctg caccaagacc aacatggtga 120

tggtgttcgg cnagatcacg accanggcga ccgtnt 156

<210> 329
<211> 178
<212> nucleic acid
<213> Zea mays

<400> 329

cccacggcgg gggcgccttc tccggcaagg acccgaccaa ggtggaccgc agcggggcct 60

acgtcgcgag gnaggctgcc aagagcatcg tcgccgccgg cctcgcccgc ngcgccattg 120

tccaggtctc ctacgccatc ggcgtgcccg ancccctttc ggtgttcgtg gacacgta 178

<210> 330
<211> 176
<212> nucleic acid
<213> Zea mays

<400> 330

tagttctaga tcggcaagng cnnccnttgn canatgttcg ggtacgccac cgacgagacc 60

cccgagctga tgccgctgag ccacgtgctg gccaccaagc tgggcgcgcg cctcaccgag 120

gtgcgcaaga acggcacctg cgcctggctg aggcccgacg gcaagaccca ggtgac 176

<210> 331
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 331

cttctcnctc ttgccggtnn cgnntaaaga ncagcagcgc aagaggtcgg tagagcgatg 60

aagaaggcaa tggcggccgn nagcttcctt ttcacctcng antccgtgaa cgangggcan 120

ccnganaagc tgtgcgncca ngtntcggac gccgtgcttg acgcatgcct cgcgcaggan 180

cccgacagca aggtggatgc gagacctgca taagaccaac atggtgatgg tgttcgncga 240

gatcacgacc aaggcgnccg tgg 263

<210> 332
<211> 225
<212> nucleic acid
<213> Zea mays

<400> 332

cgtttgcctc ttctccctct tgccggtccc gaataaagag cagcagcgca agaggtcggt 60

agagcgagaa gaaggcaatg gcggccgaga gcttcctttt cacctcggag tccgtgaacg 120

aggggcaccc cgacaagctg tgcgaccagg tgtcggacgc cgtgcntgac gcatgcctcg 180

cgcaggaccc cgacagcaag gtggcctgcg agacctgcac canga 225

<210> 333

<211> 331
<212> nucleic acid
<213> Zea mays

<400> 333

gtcggatctg agacgagacg agacgannnc ccctcccctc aaccggaact tgttttaccc 60

catctcatcc cactgactcc nnccacccac ccgcccgcng cctccgccgg atctcgtcgg 120

actcggatcc gcncgaccac gaccaccccg cgtcgccgcc gcgcanagca gcagatcaga 180

gaagatggcc ggactcgaca ccttcctctt cacctcggag tccgtgaacg agggacaccc 240

tgacaagctc tgcgaccagg tctcagatgc tgttctggac gcttgccttg ctgaggaccc 300

tgacagcaag gttgcttgcg agacctgcac c 331

<210> 334
<211> 166
<212> nucleic acid
<213> Zea mays

<400> 334

ggaagaccca ggtgacagtg gagtaccgca acgagggtgg cgccatggtt cccatccgtg 60

tgcacacagt cntcatctct acccagcacg acgagacagt caccaacgac gagattgctg 120

ctgacctgaa ggagcacgtc atcaagccag tcatccccga gcagta 166

<210> 335
<211> 170
<212> nucleic acid
<213> Zea mays

<400> 335

ccatggttcc catccgtgtg cacacagtcc tcatctctac ccagcacgac gagacagtca 60

ccaacgacga gattgctgct gacctgaagg agcacgtcat caagccagtc atccccgagc 120

agtacctcga cgagaagaca atnttccacc tcaaccngtt ggnggttcgt 170

<210> 336
<211> 247
<212> nucleic acid
<213> Zea mays

<400> 336

atcatcaacc tcgacctcaa gaaaggcggc aacgggcgct acctcaagac ggcggcctac 60

gggcactttg ggagggacga ccccgacttc acctgggagg tggtgaagcc cctcaaggcg 120

gagaagccgt cttctgcatg aggcgcctcc tctgtttcgg aagaagcttt tggtctggtc 180

tgcctgcgct ctatcatgct tttttatggc tcctacgtgt tgtgattctt gatctgcccc 240

ttgctta 247

<210> 337
<211> 196
<212> nucleic acid
<213> Zea mays

<400> 337

gcagtnccct gatatngctc agggtgtgca tggccacttc accaagcgcc ccgaggagat 60

tngagcnggt gaccagggac acatgttang gtatgcgacc gatgagacnc ctgagttgat 120

gcccctcagc catgtccttg ccaccaagct aggtgcacgt ntcaaccgag gtccgcaaga 180

acggaaccng ccactg 196

<210> 338
<211> 211
<212> nucleic acid
<213> Zea mays

<400> 338

ctccctcttg ccggtcccga ataaagagca gcagcgcaag aggtcggtag agcgagaaga 60

aggcaatggc ggccgagagc ttccttttca cctcggagtc cgtgaacgag gggcaccccg 120

acaagctgtg cgaccaggtg tcggacgccg tgcttgacgc atgcntcgcg caggaccccg 180

acagcaaggt ggcctgcgag acctncacca a 211

<210> 339
<211> 302
<212> nucleic acid
<213> Zea mays

<400> 339

gacgagacga gttaccatct catcccaact ccggaacgaa caagttacca tctcatccca 60

actnccgcct tcgaccggat ctncgtcgga ctcggatccg cccgaccacc ccgcgccgcc 120

gcagatcaaa gaagatggca gctgtcgaca cattcctctt cacctcggag tctgtgaacg 180

agggacaccc tgacaagctc tgtgaccagg tctcagatgc cgttcttgac gcttgccttg 240

ctgaggaccc tgacagcaag ttgcttgtga gactgcacca agaccaacat ggtcatggtc 300

tt 302

<210> 340
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 340

tcgacttcag gcccgggatg atcagcatca acctcgacct gaagaagggc gncaacaggt 60

tcatcaagac cgccgcctac ggccacttcg gccgtgacga cgccgacttc acctgggagg 120

tggtgaagcc cctcaagttc gacaaggcat cggcttaagg ttgggagtgt cactgtggac 180

atgaggacta ccttcctctg gctctgctgt tacctgcaag cattgctgct ctggatgtgn 240

gtgttaatca ganactgctg ctc 263

<210> 341
<211> 300
<212> nucleic acid
<213> Zea mays

<400> 341

cttcgnactt caggcccggg atgatcagca tcaacctcga cctgaagaag ggcggcaaca 60

ggttcatcaa gaccgccgcc tacggccact tcggccgtga cgacgccgac ttcacctggg 120

aggtggtgaa gcccctcaag ttcgacaagg catcggctta aggttgggag tgtcactgtg 180

gacatgagga ctaccttcct ctggctctgc tgttacctgc aagcattgct gctgctggat 240

gtgtgtgttt gatcagtgac tggctgctgc tccatagaag atgaacggag agaaggatga 300

<210> 342
<211> 249
<212> nucleic acid
<213> Zea mays

<400> 342

atccgtttgc ctcttctccc tcttgccggt cccgaataaa gancagcagc gcaagaggtc 60

ggtanagcga gaagaaggca atggcggccg agagttcctt ttcacntcgg agtccgtgaa 120

cgaggggcac cccgacaagc tgtgcgacca gntgtcggac gccgtgcttg angcatgnct 180

cgcgcaggac cccgacagca aggtggcctg cgagactgca ccaagaccaa nntggtgatg 240

gtgttcggc 249

<210> 343
<211> 196
<212> nucleic acid
<213> Zea mays

<400> 343

caatctncca cntcaacccg nctgagncgc ttcgncatcg gcggacctca cggcgacgcn 60

ggnctcantg gccggaagat acatcatcga cacctacggn ggctggggag cccacggcgg 120

gggcgcctnc tccggcaagg ncccgaccaa ggtggacngc agcggggcct acgtcgcgan 180

gnaggctgcc aagagc 196

<210> 344
<211> 249
<212> nucleic acid
<213> Zea mays

<400> 344

atcaacctcg acctcaagaa aggcggcaac gggcgctacc tcaagacggc ggcctacggg 60

cactttggga gggacgaccc cgacttcacc tgggaggtgg tgaagcccct caaggcggag 120

aagccgtctt ctgcagaggc gcctcctctg ttttggaaga agcttttggt ctgncctggt 180

ctggtctggt gtgccncgcg ctctatcatg ctttttttatg gctcctactt gtgattcttn 240

atctgcccc 249

<210> 345
<211> 143
<212> nucleic acid
<213> Zea mays

<400> 345

cgactcctac ggcaccggga ccatccccga caaggagatc ctaaagatcg tcaaggagaa 60

cttcgacttc aggccaggga tggtcaccat caacctcgac ctcaagaagg gcggcaacag 120

gttcatcaag accgccgcat ang 143

<210> 346
<211> 142
<212> nucleic acid
<213> Zea mays

<400> 346

ccgagcctct ctccgtgttc gtngacacgt acggcaccgg cgcgatcccc gacaaggaga 60

tcctcaagat tgtcaaggag aacttcgatt tcaggcctgg catgatcatc atcaaccttg 120

acctcaagaa aggcggcaac gg 142

<210> 347
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 347

cgagacgagt naccatntca tncccaacnc cggaacgaac aagttaccat ntcatnccca 60

acncccgcct cgaccggatc tccgtcggac tccggatccg cccgaccacn ccgcgccgcc 120

gcagatcaaa gaagatggca gctgtcgaca cattcctctt cacntcggag tctgtgaacg 180

agggacacnc tgacaagctc tgtgaanagg tctcagatgc cgttcttgac gcttgcnttg 240

ctgaggaccc tgacagcaag gttgcttgtg agaccngcac caagacca 288

<210> 348
<211> 288
<212> nucleic acid
<213> Zea mays

<400> 348

gagacgagac gagtcccctc cccccacctc gcctcaccca accggaacga acaagttaca 60

atctcatccc aaccccgcct ccgaccggat ctcgtcggac tcggatccgc ccgaccaccc 120

cgcgccgccg cagatcaaag aagatggcag ctgtcgacac attcctcttc acctcggagt 180

ctgtgaacga gggacaccct gacaagctct gtgaccaggt ctcagatgcc gttcttgacg 240

cttgcnttgc tgaggaccct gacagcaagg ttgcttgtga gacctgca 288

<210> 349

<211> 147
<212> nucleic acid
<213> Zea mays

<400> 349

ccgacaagga gatcctaaag atcgtcaagg agaacttcga cttcaggcca gggatgatca 60

ccatcaacct cgacctcaag aagggcggca acaggttcat caagaccgcc gcatacggcc 120

actttggccg tgacgacgcc gacttca 147

<210> 350
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 350

cttctccctc ttgccggtcc cgaataaaga gcagcagcgc aagaggtcgg tagagcgaga 60

agaaggcaat ggcggccgag agcttccttt tcacctcgga gtccgtgaac gaggggcacc 120

ccgacaagct gtgcgaccag tgtggacgcc gtgcttnacg catgcctcgc gcagaccccg 180

acagcaaggt ggcctgcgag acctgcacca agaccaacaa tgtgatngtg ttcggcgaga 240

tnagancaaa gngactgnga tnca 264

<210> 351
<211> 235
<212> nucleic acid
<213> Zea mays

<400> 351

cgcctcttct cctccctcct gccgggtcct tantaaagag cagcagcgca agaggttggt 60

agagcgagcg agaagaaggc aatggcggcg gagagcttcc tgttcacctc ggagtccgtg 120

aacgaggggc acccagacaa gctgtgcgac caggtgtcgg acgcggtcnt gacggcttcc 180

tggngcagga ccccgacagc aaggtggcct gcgagacctg caccaagang aacat 235

<210> 352
<211> 211
<212> nucleic acid
<213> Zea mays

<400> 352

cgtttgcctc ttctccctct tgccggtccc gaataaagag cagcagcgca agaggtcggt 60

agagcgagaa gaaggcaatg gcggccgaga gcttcctttt cacctcggag tccgtgaacg 120

aggggcaccc cgacaagctg tgcgaccagg tgtcggacgc cgtgcttgac gcatgcntcg 180

cgcaggaccc cgacagcaag gtggcctgcn a 211

<210> 353
<211> 212
<212> nucleic acid
<213> Zea mays

<400> 353

gtttgcntct tctccctctt gccggtcccg aataaagagc agcagcgcaa gaggtcggta 60

gagcgagaag aaggcaatgg cggccgagag cttccttttc acatcggagt ccgtgaacga 120

gggncacncc gacaagctgt gcgaccaggt gtcggacgcc gtgcttgacg catgcntcgc 180

gcaggacccc gacagcaagg tggcctgcga ga 212

<210> 354
<211> 490
<212> nucleic acid
<213> Zea mays

<400> 354

taaagatcgt caaggagaac ttcgacttca ggccagggat ggtcaccatc aacctcgacc 60

tcaagaaggg cggcaacagg ttcatcaaga ccgccgcata cggccacttt ggccgtgacg 120

acnccgactt cacctgggag gtggtcaagc ccctaaagaa ggcatccgct taagaatgta 180

ttgggaagtt cactggacat gaggttcatc ttcgtctggc tctgctgata cctgcaagga 240

tnnnnnnnnn nnnnnnnnnc ctggatgtgt gtttgatcag tgactggctg ctctgctcca 300

tagaagatga atgaagagag agatggtgaa naaggctttg gcaaatggca attgccgaac 360

aagccatgtc gcnccactga ccggcttaat gattggtata atttggtgtg gcaacancca 420

ggattaatgc ccctggnctt ttatcnttac tactaanttg ggctngtccg gtatctaatt 480

ttctttccct 490

<210> 355
<211> 389
<212> nucleic acid

<213> Zea mays

<400> 355

gnnnaggccn ttgananggg gggnttnatg aatcngtacc ggtccggaat tcccgggtcg 60

acccacgcgt ccgcggacgc gtgggcctcg acctcaagaa aggcggcaac gggcgctacc 120

tcaagacggn ggcctacggg cactttggga gggacgaccc cgacttcacc tgggaggtgg 180

tgaagcccct caaggcggag aagccgtctt ctgcatgagg cgcctcctct gtttcggaag 240

aagcttttgg tctggtctgc ctgcgctcta tcatgctttt ttatggctcc tacgtgttgt 300

gattcttgat ctgccccttg cttatcattt gtattgtact gtcactgtcc taataagtgg 360

tacgtgtgcg gggtcgtatt gtgtctgct 389

<210> 356
<211> 289
<212> nucleic acid
<213> Zea mays

<400> 356

gtcggatctg agacgagacg agtcccctcc ccccacctcg cctcacccaa ccggaacgaa 60

caagttacaa tctcatccca accccgcctc gaccggatct cgtcggactc ggatccgccc 120

gaccaccccg cgccgccgca gatcaaagaa gatggcagct gtcgacacat tcctcttcac 180

ctcggagtct gtgaacgagg gacaccctga caagctctgt gaccaggtct cagatgccgt 240

tcttgacgct tgccttgctg aggaccctga cagcaaggtt gcttgtgag 289

<210> 357
<211> 264
<212> nucleic acid
<213> Zea mays

<400> 357

gggatgatca gcatcaacct cgacctgaag aagggcggca acaggttcat caagaccgcc 60

gcctacggcc acttcggccg tgacgacgcc gacttcacct gggaggtggt gaagcccctc 120

aagttcgaca aggcatcggc ttaaggttgg gagtgtcact gtggacatga ggactacctt 180

cctctggctc tgctgttacc tgcaagcatt gctgctgctg gatgtgtgtg tttgatcagt 240

gactggctgc tgctccatag aaga 264

<210> 358
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 358

gggatgatca gcatcaacct cgacctgaag aagggcggca acaggttcat caagaccgcc 60

gcctacggcc acttcggccg tgacgacgcc gacttcacct gggaggtggt gaagcccctc 120

aagttcgaca aggcatcggc ttaaggttgg gagtgtcact gtggacatga ggactacctt 180

cctctggctc tgctgtnacc tgcaagcntt gctgctgctg gatgtntgtg tttgatcagt 240

gantggctgc tgctccatag ang 263

<210> 359
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 359

gagacgagac gagttaccat ctcatcccaa ctccggaacg aacaagttac catctcatcc 60

caactccgcc tcgaccggat ctcgtcggac tcggatccgc ccgaccaccc cgcgccgccg 120

cagatcaaag aagatggcag ctgtcgacac attcctcttc acctcggagt ctgtgaacga 180

gggacaccct gacaagctct gtgaccaggt ctcagatgcc gttcttgacg cttgccttgc 240

tgaggaccct gacagcaagg ttgcttgt 268

<210> 360
<211> 289
<212> nucleic acid
<213> Zea mays

<400> 360

gtcggatctg agacgagacg agtcccctcc ccccacctnc gcctcaccca accggaacga 60

acaagttaca attctcatcc caaccccgcc tcgancggat ctcgtcggac tcggatccgc 120

ccgaccaccc cgcgccgccg cagatcaaag aagatggcag ctgtcgacac attcctcttc 180

acctcggagt ctgtgaacga gggacaccct gacaagctct gtgaccaggt ctcagatgcc 240

gttcttgacg cttgccttgc tgaggaccct gacagcaagg ttgcttgtg 289

<210> 361
<211> 252
<212> nucleic acid
<213> Zea mays

<400> 361

ctcttctccc tcttgccggt cccgaataaa gagcagcagc gcaagaggtc ggtagagcga 60

gaagaaggca atggcggccg agagcttcct tttcacctcg gagtccgtga acgaggggca 120

cccgacaagc tgtgcgacca ggtgtcggac gccgtgcttn acgcatgcct cggcaggacc 180

ccgaaacaag tggctggaga ccttcaccaa gancaatntg gtgatggtgt tcggngaatc 240

acgacaaggc ga 252

<210> 362
<211> 246
<212> nucleic acid
<213> Zea mays

<400> 362

gatcagcatc aacctcgacc tgaagaaggg cggcaacagg ttcatcaaga ccgccgccta 60

cggccacttc ggccgtgacg acgccgactt cacctgggag gtggtgaagc ccctcaagtt 120

cgacaaggca tcggcttaag gttgggagtg tcactgtgga catgaggact accttcctct 180

ggctctgctg ttacctgcaa gcattgctgc tgctggatgt gtgtgtttga tcagtgactg 240

gctgct 246

<210> 363
<211> 240
<212> nucleic acid
<213> Zea mays

<400> 363

cgacctggnc gnggacgcgt ggcnngaacg cgtngggccc ggcctcganc cgccncgcca 60

ttgtccagga tntcctacgc cangcggctg cccananccc ctttcggtgt tcgtggacac 120

gtacggcacc ggcgcgatcc ccgacaagga gatcctgaag atcgtgaagg agaacttcga 180

cttcaggccc ggcatgntca tcatcaacct cgacctcaag aaaggcngca agggcgtact 240

<210> 364

<211> 270
<212> nucleic acid
<213> Zea mays

<400> 364

gacgagacga gtcccctccc cccacctacg cctcacccaa ccggaacgaa caagttacaa 60

tctcatccca accccgcctn cgaccggatc tcgtcggact cggatccgcc cgaccacccc 120

gcgccgccgc agatcaaaga agatggcagc tgtcgacaca ttcctcttca cctcggagtc 180

tgtgaacgag ggacaccctg acaagctctg tgaccaggtc tcagatgccg ttcttgacgc 240

ttgccttgct gaggaccctg acagcaaggt 270

<210> 365
<211> 252
<212> nucleic acid
<213> Zea mays

<400> 365

ttctagatcg cgggcggccg ctcgcccacg cgtccgatcc ccgttcgcct cttctcctcc 60

ctcctgccgg gtccttaata aagagcagca gcgcaagagg ttggtagagc gagcgagaag 120

aaggcaatgg cggcggagag cttcctgttc acctcggagt ccgtgaacga ggggcaccca 180

gacaagctgt gcgaccaggt gtcngacgcn gtgctggacg cctgcctggc gcaggacccc 240

gacagcaagg tg 252

<210> 366
<211> 320
<212> nucleic acid
<213> Zea mays

<400> 366

gtcggatctg agacgagacg angngnccct cccctcaacc ggaacttgtt ttaccccatc 60

tcatcccact gactccngcc acccacnann ncnntgcctc cgccggatct cgtcggactc 120

ggatccgccc gaccacgacc accccgcgcc gccgccgcgc agagcagcag atcagagaag 180

atggccggac tcgacacctt cctcttnacc tcggagtccg tgaacgaggg acaccctgac 240

aagctctgcg accaggtctc agatgctgtt ctggacgctt gccttgctga ggaccctgac 300

agaaagttgt tgcgagactg 320

<210> 367
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 367

ggccgggtcg gatctgagac gagacgagtt accatctcat cccaactccg gaacgaacaa 60

gttaccatct catcccaact ccgcctcgac cggatctcgt cggactcgga tccgcccgac 120

caccccgcgc cgccgcagat caaagaagat ggcagctgtc gacacattcc tcttcacctc 180

ggagtctgtg aacgagggac accctgacaa gctctgtgac caggtctcag atgccgttct 240

tgacgcttgc cttgctgagg accctgacag caag 274

<210> 368
<211> 271
<212> nucleic acid
<213> Zea mays

<400> 368

gtcggatctg agacgagacg agttaccatc tcatcccaac tccggaacga acaagttacc 60

atctcatccc aactccgcct cgaccggatc tcgtcggact cggatccgcc cgaccacccc 120

gcgccgccgc agatcaaaga agatggcagc tgtcgacaca ttcctcttca cctcggagtc 180

tgtgaacgag ggacaccctg acaagctctg tgaccaggtc tcagatgccg ttcttgacgc 240

ttgccttgct gaggaccctg acagcaagtt g 271

<210> 369
<211> 274
<212> nucleic acid
<213> Zea mays

<400> 369

gacgagacga gtcccctnac ccccacctac gcctcaccca accggaacga acaagttaca 60

atactgcatc ccaaccccgc ctcgaccgga tctcgtcgga ctcggatccg cccgaccacc 120

ccgcgccgcc gcagatcaaa gaagatggca gctgtcgaca cattcctctt cacctcggag 180

tctgtgaacg agggacaccc tgacaagctc tgtgaccagg tctcagatgc cgttcttgac 240

gcttgccttg ctgaggaacc tgacagcaag gttg 274

<210> 370
<211> 203
<212> nucleic acid
<213> Zea mays

<400> 370

ctcttctccc tcttgccgnt cccgaataaa gagcagcagc gcaagaggtc ggtagagcga 60

gaagaaggca atggcggccg agagcttcct tttcacntcg gagtccgtga acgaggggca 120

cgccgacaag ctgtgcgacc aggtgtcgga cgccgtgctt gacgcatgcc tcgcgcagga 180

cnccgacagc aagtggcctg cga 203

<210> 371
<211> 201
<212> nucleic acid
<213> Zea mays

<400> 371

gcctcttctc ctccctcctg ccgggtcctt aataaagagc agcagcgcaa gaggttggta 60

gagcgagcga gaagaaggca atggcggcgg agagcttcct gttcacctcg gagtccgtga 120

acgaggggca cccagacaag ctgtgcgacc aggtgtcgga cgcggtgctg gacgcctgcc 180

tggcgcagga ccccgacagc a 201

<210> 372
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 372

tcagcatcaa cctcgacctg aagaagggcg gcaacaggtt catcaagacc gccgcctacg 60

gccacttcgg ccgtgacgac gccgacttca cctgggaggt ggtgaagccc ctcaagttcg 120

acaaggcatc ggcttaaggt tgggagtgtc actgtggaca tgaggactac cttcctctgg 180

ctctgctgtt acctgcaagc attgctgctg ctggatgtgt gtgtttgatc agtgactggc 240

tgctgctcca tagaagatga acggagagaa ggatgatgaa gggctttggc aatcgccgct 300

gcaactg 307

<210> 373

<211> 283
<212> nucleic acid
<213> Zea mays

<400> 373

gtcttacgcc atcgggtgcc cgagcctctc tccgtgttcg tcgacacgta cggcaccggc 60

gcgatccccg acaaggagat nctcaagatt gtcaagngaa ttcgatttca ggcctggcat 120

gatcatcatc aaccttgact caagaaaggc ggcaacgggc gctactcaag acgcggccta 180

cggcactttg gaaggagacc tgattcactg ggagtggtga accatcaatg gagaacttgc 240

tcnnngctat tatataantt gtgcgttctg actatngtta nag 283

<210> 374
<211> 181
<212> nucleic acid
<213> Zea mays

<400> 374

cttgccggtc ccgaataaag agcanncagc gcaagagntc ggtagagcga caagaaggca 60

atggcggccg agagcttcct tttcacctcg gagtccgtga acgaggggca ccccgacaag 120

ctgtgcgacc aggtgtcgga cgccgtgctt gacgcatgcc tcgcgcagga ccccgacagc 180

a 181

<210> 375
<211> 201
<212> nucleic acid
<213> Zea mays

<400> 375

ctgccgggtc cttaataaag agcagcagcg caaggngagc cgccagcttg ccccaggttg 60

gtagagcgag cgagaagaag gcaatggcgg cggagagctt cctgttcacc tcggagtccg 120

tgaacgaggg gcacccagac aagctgtgcg accaggtgtc ggacgcggtg ctggacgcct 180

gcctggcgca ggaccccgac a 201

<210> 376
<211> 216
<212> nucleic acid
<213> Zea mays

<400> 376

acatccatcc ccgttcgcct cttctcctcc ctcctgccgg gtccttaata aagagcagca 60

gcgcaagagg ttggtagagc gagcgagaag aaggcaatgg cggcggagag cttcctgttc 120

acctcggagt ccgtgaacga gtggcaccca gacaagctgt gcgaccaggt gtcggacgcg 180

gtgctggacg cctgcctggc gcaggacccc gacagc 216

<210> 377
<211> 130
<212> nucleic acid
<213> Zea mays

<400> 377

gtcgaacgat gtcgggcttg acgctgacca ctgcaaggtg cntgtgaaca ttgagcagca 60

gtcccctgat attgcncagg gtgtgcacgg ccacttcacc aagcgccccg aggagattng 120

agctggtgac 130

<210> 378
<211> 306
<212> nucleic acid
<213> Zea mays

<400> 378

gtcggatctg agacgagacg agacgatccc ccctcncctc aaccggaact tgttttaccc 60

catctcatcc cactgantcc acccacccac ccgcccgntg cntccgccgg atntcgtcgg 120

actcggatcc gcccgaccac gaccaccccg cgtcgccgcc gcgcanagca gcagatcaga 180

gaagatggcc ggactcgaca ccttcntctt cacctcggag tccgtgaacg agggacaccc 240

tgacaagctc tgcgaccagg tctcagatgc tgttctggag gnttgccttg ctgaggaccc 300

tgacag 306

<210> 379
<211> 313
<212> nucleic acid
<213> Zea mays

<400> 379

gagacgagac gannnnccct cccctcaacc ggaacttgtt ttaccccatc tcatcccact 60

gactccancn acccacccgc ncgctgcctc cgccggatct cgtcggactc ggatccgccc 120

gaccacgacc accccgcgtc gccgccgcgc agagcagcag atcagagaag atggccggac 180

tcgacacctt cctcttcacc tcggagtccg tgaacgaggg acaccctgac aagctctgga 240

ccaggtctca gatgctgttc tggacgcttg ccttgctgag gacctgacag caaggttgct 300

tgggagacct gca 313

<210> 380
<211> 134
<212> nucleic acid
<213> Zea mays

<400> 380

gcngacctca nggagcacgt catcaagcnc gtgatccctg agaagtacct cgacgagang 60

accatcttcc acctcaaccc gtccgggcgc ttcgtcatcg gcnggcccca cggtnacncc 120

ngcntcacng gtgc 134

<210> 381
<211> 294
<212> nucleic acid
<213> Zea mays

<400> 381

ccgggtcgga tctgagacga gacgagttac catctcatcc caactccgga acgaacaagt 60

taccatctca tcccaactcc gcctcgaccg gatctcgtcg gactcggatc cgcccgacca 120

ccccgcgccg ccgcagatca aagaagatgg cagctgtcac acattcctct tcacctcgga 180

gtctgtgaac gagggacacc ctgacaagct ctgtgaccag gtctcagatg ccgttcttga 240

cgcttgcctt gctgaggacc ctgacagcaa ggttgcttgt gagactgcac caag 294

<210> 382
<211> 164
<212> nucleic acid
<213> Zea mays

<400> 382

cctgagttga tgcccctcag ccatgtcctt gccagcaaac taggtgctcg tntcaccgag 60

gtccgcaaga gcggaaacct gcccctggct acaggcctga tgggaagacc caggtgacag 120

tcgagtaccg cantgagggt ggtgccatgg tccccatccg tntc 164

<210> 383
<211> 247
<212> nucleic acid
<213> Zea mays

<400> 383

cggagaaacc ttctgnctaa ggccgccgtn ttgaggtagn gnccgtngcc gactttcttg 60

nggnnnaggt tgatnatgat catgccaggc ctgaaatcga agttctcctt gacaatcttg 120

aggatctcct tgtcggngat cagngccagt gcacgtacag ngtcnacgaa cacnganaga 180

ngctcgggca ctccnntnnc ngtaagacan ctggacnatg gttagtgnaa gtnatnccnt 240

tgaanac 247

<210> 384
<211> 207
<212> nucleic acid
<213> Zea mays

<400> 384

cacgtctaat cagacatttt actcagaagt catctttgct tgccggtccc gaataaagag 60

cagcagcgca agaggtcggt agagcgagaa gaaggcaatg gcggccgaga gcttcctttt 120

cacctcggag tccgtgaacg aggggcaccc cgacaagctg tgcgaccagg tgtcggacgc 180

cgtgcttgac gcatgcctcg cgcagga 207

<210> 385
<211> 292
<212> nucleic acid
<213> Zea mays

<400> 385

gggtcggatc tgagacgagg cgagacgacc ccccctcccc tcaaccggaa cttgttttac 60

cccatctcat cccacagnct ccacccannc gcccgctgcc tccgccggat ctcgtcggac 120

tcggatccgc ccgaccaccc cgcgccgccg ccgcgcagag cagcagcaga tcagagaaga 180

tggccggact cgacaccttc ctcttcacct cggagtccgt gaacgaggga caccctgaca 240

agctctgcga ccaggtctca gatgctgttc tggacgcttg ccttgctgag ga 292

<210> 386
<211> 142
<212> nucleic acid
<213> Zea mays

<400> 386

cgcgcgcctc accgaggtgc gcaagaacgg nncacctgcg cctggctgag gcccgacggc 60

aagacccagg tgacggtgga gtacntgaac gagggcggcg ccatggtgcc cgtccgcntg 120

cacaccgtgt catctccaca ca 142

<210> 387
<211> 137
<212> nucleic acid
<213> Zea mays

<400> 387

gngggcgacc agggccacnt gnncgggtac gccaccgacg agacccccga gctgatgcng 60

ctgagccacg ngntggccac caagntgggc gcgcgcntca ccgangngcg caagaacggc 120

acntggcncn tggnnga 137

<210> 388
<211> 159
<212> nucleic acid
<213> Zea mays

<400> 388

gaaaggcggc aacgggcgct acctcaagac ggcggcctac gggcactttg ggaggnacga 60

ccccgacttc acctggnagg tggtgaagcc cctcaaggcg gagaagccgt cttctgcatg 120

aggcgcctcc tctnttttgn aagangcttt tggtcnggt 159

<210> 389
<211> 268
<212> nucleic acid
<213> Zea mays

<400> 389

gacgagacga gtcccctccc cccacctcgc ctcacccaac cggaacgaac aagttacaat 60

ctcatcccaa ccccgcctcg accggatctc gtcggactcg gatccgcccg accaccccgc 120

gccgccgcag atcaaagaag aggcagctgt cgacacattc ctcttcacct cggagtctgt 180

gaacncggga caccctgaca agctctgtga ccangtctca gatgccgttc ttgacgcttg 240

ccttgctgag gaccctgaca gcaaggtt 268

<210> 390
<211> 282
<212> nucleic acid
<213> Zea mays

<400> 390

aagaagggcg gcaacaggtt catcaagacc gccgcctacg gccacttcgg ccgtgacgac 60

gccgacttca cctgggaggt ggtgaagccc ctcaagttcg acaaggcatc ggcttaaggt 120

tgggagtgtc actgtggaca tgaggactac cttcctctgg ctctgctgtt acctgcaagc 180

attgctgctg ctggatgtgt gtgtttgatc agtgactggc tgctgcttcc atagaagatg 240

aaggagagaa ggatgatgaa gggctttggc aatcgccgcg ca 282

<210> 391
<211> 272
<212> nucleic acid
<213> Zea mays

<400> 391

caacgggcgc tacctcaaga cggcggccta cggccacttt ggaagggacg accctgactt 60

cacctgggag gtggtgaagc cactcaagtc ggagaaacct tctgcctaag gcggcctttt 120

tttttcagta agaagctttt ggtggtctgc tgtgcttaat catgctttta tatggcttct 180

acatgttgtg gttctttctt gatctgcacc gcgcttatcg tttgtgttgt actgccctaa 240

taagtggtgc tatgaggact gtttctggtt tt 272

<210> 392
<211> 291
<212> nucleic acid
<213> Zea mays

<400> 392

cggatctgag acgagacgag acgannnncc ctcccctcaa ccggaacttg ttttacccca 60

tctcatccca ctgncctccn gccacccacc cgcncgctgc ctccgccgga tctcgtcgga 120

ctcggatccg cccgaccacg accacccccgc gtcgccgccg cgcagagcag cagatcagag 180

aagatggccg gactcgacac cttcctcttc acctcggagt ccgtgaacga gggacaccct 240

gacaagctct gcgaccaggt ctcagatgct gttctggacg cttgccttgc t 291

<210> 393
<211> 531
<212> nucleic acid
<213> Zea mays

<400> 393

agnnnnnnnn natntaatga atttnangaa tgctctaccn gnaattcccg ggtcgaccca 60

cgcgtccgnc cacncgtccg angagatcct caagatcgng aaggagaact tcgacttcag 120

gcccngnatg atcagcatca acctngacct gaanaaggnc ggcaacaggt tcatcaagac 180

cgacgcctac agtcacttcn gncgtgacga cnccgactta cctggnaggt ggtgaacccc 240

tcaagttcga caaggcatcg ncttaaggct gngaagtgct cactgtggac attgaggact 300

accttactct ggctctgntg gtacctgcaa agcattggct gctgatggat gtntgngnct 360

gatcaagnga ctggctgctg cttcatanna gatntaccgg aganaaagat gatgnataaa 420

ggcttnggca atcggcggtt canctgnaac ccatgccatt ccgcttannng aatggggata 480

anttggcttg gaaanaanca tcattattat ggnctgaact ttcatcttta c 531

<210> 394
<211> 572
<212> nucleic acid
<213> Zea mays

<400> 394

gggggnnnng gnaacttcta tntcgnccgc cacggtccaa aaaatcccgg ggtccgaccc 60

acgcgttccg aggcnacttt tctcccggca aagggaccca aaccaaaggg tttgaaccnc 120

aagccgggaa ccctaatntt cgcaaagggg caanggctng cccaaagaac caatccgtcc 180

gcccaagccg ggccctttgc ctccgcccgc cgccaatccg ttccaangat tgtcttaacg 240

ccaatccgng cgttnccccg aaacctctct ccgttgttcg tcgacacnta cggcaccngg 300

cgcgatcccc gacaaggaan atnctcaaga ttgtcaagga agaacttcna tttcaggcct 360

gngcatgatc atcatcaacc ttgacctcaa gaaangcggc aacggggcgc tacctcaaag 420

acggcggcct aaggccactt tgggaaaggg acnaaccctg aattcaacct ggggaaggtt 480

gttgaaagcc aactcaaaag ttccgaaaaa aanccttctg gcccnaaagg cgggcccttt 540

ttttcnagtt aanaaaccct ttgggggggg nc 572

<210> 395
<211> 127
<212> nucleic acid
<213> Zea mays

<400> 395

cagcggcctt gctcgcngcg ccatcgtcca ggtgtcttac gccatcggcg tgcccgatnc 60

ctctctccgt gttcgtcgac acgtacggca ccggcgcgat ccccgacaag gngatcctca 120

agattgt 127

<210> 396
<211> 294
<212> nucleic acid
<213> Zea mays

<400> 396

tcggnatctg agacgagacg agacgannnn ccctcccctc aaccggaact tgttttaccc 60

catctcatcc cactgactcc ntnnancnac ccgcangctg cctccgncgg atctcgtcgg 120

actcggatcc gcccgaccac gaccaccccg cgtcgccgcc gcgcagagca gcagatcaga 180

gaagatggcc ggactcgaca ccttcctctt cacctcggag tccgtgaacg agggacaccc 240

tgacaagctc tgcgaccagg tctcagatgc tgttctggac gcttgcttgc tgag 294

<210> 397
<211> 270
<212> nucleic acid
<213> Zea mays

<400> 397

cgantnacca tctcatccnc aactccggaa cgaacaagtt accatctcat ccanacttcc 60

gcctcgaccg gatctngtcg gactcggatc cgcccganca ccccgnggcc gccgcngatc 120

ngagaagatg gcagctgtcg acacattcct cttnagctnc ggagtctgtg aacgagggac 180

accctgacaa gncctgtgac caggtctcag atgccgtctt gacgcntgcn ttgctgagga 240

ccctganagc naaggtgctt gtganacctg 270

<210> 398
<211> 284
<212> nucleic acid
<213> Zea mays

<400> 398

catcaacctc gacctcaaga ngggcggcaa caggttcatc aagaccgccg catacggcca 60

ctttggccgt gacgacgccg acttcacctg ggaggtggtc aagcccctaa agaaggcatc 120

cgcttaagaa tgtattggga agttcactgg acatgaggtt catcttcgtc tggctctgct 180

gatacctgca aggatnnnnn nnnnnnnnnn nnnnnnnnga tgtgtgtttg atcagtgact 240

ggctgctctg ctccatagaa gatgaatgaa gagagagatg gtga 284

<210> 399
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 399

atctgagacg agacgnngnc nncctcncct caaccggaac ttgttttacc ccatctcatc 60

ccantgantc nagnnannca cncgcncgct gcntccgncg gatctcttcg gactcggatc 120

cgcccganca cgaccanccc gcgccgccgc cgcgcagagc agcagatcag agaagatggc 180

cggactcgac accttcntct tcacctcgga gtccgtgaac gagggacacc ctgacaagct 240

ctgcgaccag gtctcagatg ctgttctgga ngttgcttgc tgangacctg acagcaa 297

<210> 400
<211> 279
<212> nucleic acid
<213> Zea mays

<400> 400

gtcggatctg agacgagacg agacgatnnc ccctcccctc aaccggaact tgttttaccc 60

catctcatcc cacngactcc ncccacccac ccgcccgctg cctccgccgg atctcgtcgg 120

actcggatcc gcccgaccac gaccaccccg cgtcgccgcc gcgcagagca gcagatcaga 180

gaagatggcc ggactcgaca ccttcctctt cacctcggag tccgtgaacg agggacaccc 240

tgacaagctc tgcgaccagg tctcagatgc tgttctgga 279

<210> 401
<211> 307
<212> nucleic acid
<213> Zea mays

<400> 401

cggatctgag acgagacgag acgatnnncc ctcccctcaa ccggaacttg ttttacccca 60

tctcatccca ctgantctnc ccatccaccc gcccgcngcc tccgccggat ctcgtcggac 120

tcggatccgc ccgaccacga ccaccccgcg tcgccgccgc gcagagcagc agatcagaga 180

agatggccgg actcgacacc ttcctcttca cctcggagtc cgtgaacgag ggacaccctg 240

acaagctctg cgaccaggtc tcagatgctg ttctggacgt tgcttgctga ggacctgaca 300

gcaaggt 307

<210> 402
<211> 291
<212> nucleic acid
<213> Zea mays

<400> 402

gtttgcctct tctccctctt gccggtcccg aataaagagc agcagcgcaa gaggtacggt 60

agagcgagaa gaaggcaatg gcggncgaga gcttcctttt cacctcggag tccgtgaacg 120

angggcaccc cgacaagctg tgcgaccagg tttacaaaan ccgtgcttga cgcatgcctc 180

gcgcagaccc cgacagcaag gtggcttncg agacttncac caagaccaca tggtangttt 240

tngnngntgg nncgncaaag nnaangngtt tnanaaaaat ntnnnnancc c 291

<210> 403
<211> 386
<212> nucleic acid
<213> Zea mays

<400> 403

caagaaagnc ggcaacgggc cgctacctca agacgggggc gnacggccac tttggaaggg 60

acgaccctga cttcacctgg gaggtggtga agccactcaa gtcggagaaa ccttctgcct 120

aaggcggcct ttttttcag taagaagctt ttggtggtct gctgtgctta atcatgcttt 180

tatatggctt ctacatgttg tggttctntc ttgatctgca ccgngcttat cgnntnngtt 240

gtactgncct aataaatnng tgcttatgan gacttgttnn tggntnnnnt antanngttn 300

naatgcttta aaacaatgan tgaattncaa gccannnttt ttttgagaag taannattat 360

tngntaannn gntnngnntn tnnngg 386

<210> 404
<211> 144
<212> nucleic acid
<213> Zea mays

<400> 404

tccgtgttcg tcgacacgta cggcaccggc gcgatccccg acaaggagat cctcaagatt 60

gtcaaggaga acttcgattt caggcctggc atncatcatc atcaaccttg acctcaagaa 120

aggcggcaac gggcgctacc tcaa 144

<210> 405
<211> 293
<212> nucleic acid
<213> Zea mays

<400> 405

agaacttcga cttcaggccc gggatgatca gcatcaacct cgacctgaag aagggcggca 60

acaggttcat caagaccgcc gcctacggcc acttcggccg tgaacgacgc cgacttcacc 120

tgggaggtgg tgaagcccct caagttcgac aaggcatcgg cttaaggttg ggagtgtcac 180

tgtggacatg aggactacct tcctctggct ctgctgttac ctgcaagcat tgctgctgct 240

ggatgtgtgt gtttgatcag tgactggctg ctgtccatag aagatgaacg gag 293

<210> 406
<211> 175
<212> nucleic acid
<213> Zea mays

<400> 406

ggtcaccatc aacctcgacc tcaagaaggg cggcaacagg ttcatcaaga ccgccgcata 60

cggccatttg gncgtgacga cgccgacttc acctgggagg tggtcaagcc cctaaagaag 120

gcatccgctt aagaatgtat tgggaagttc actggacatg aggttcatct tcgtc 175

<210> 407
<211> 219
<212> nucleic acid
<213> Zea mays

<400> 407

agggtgtgca cggccacttc accaagcgcc ccgaggagat tggagctggt gaccaggggc 60

acatgtttgg gntgcgactg acgagacccc tgagtgatgc cctcagccat gtcttgccac 120

caagctggtg tcgtctcacg gagtnccaag atggactgcc ctgntcagcc gtggaagacc 180

agtgcagtga tacgnagagg tggcatgtcc acggtnnnc 219

<210> 408
<211> 178
<212> nucleic acid
<213> Zea mays

<400> 408

gccagggatg atcaccatca acctcgacct caagangggc ggcaacaggt tcatcaagac 60

cgccgcatac ggccactttg gctgaacgac gccgacttca cctgggaggt ggtcaagccc 120

ctaaagaagg catccgctta agaatgtatt gggaagttca ctggacatga ggttcatc 178

<210> 409
<211> 126
<212> nucleic acid
<213> Zea mays

<400> 409

gcaatggcgg cggagagctt cctgttcacc tcggagtccg tgaacgaggg gcacccagnc 60

aagctgttcg ancaggtgtc tgangcggtc tggangcctt cctgnntcag gancccgaca 120

ntaaag 126

<210> 410
<211> 132
<212> nucleic acid
<213> Zea mays

<400> 410

gacctcaaga ngggcggcaa caggttcatc aagaccgccg catacggcca ctttggccgt 60

gacgacgccg acttcacctg ggaggtggtc aagcccctaa agaaggcatc cgcttaagaa 120

tgtattggga ag 132

<210> 411
<211> 83
<212> nucleic acid
<213> Zea mays

<400> 411

gtcggangcg gtgctggang cctgcctggn gcaggannCC ganagcaagg tggcctgcga 60

ganctgcacc aagangaaca tgg 83

<210> 412
<211> 133
<212> nucleic acid
<213> Zea mays

<400> 412

gcctcgaccg gatctcgtcg gactcggatc cgcccgacca ccccgcgccg ccgcagatca 60

aagaagatgg cagctgtcga cacattcctc ttcacctcgg agtctgtgaa ngaggganac 120

cctgacaagc tct 133

<210> 413
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 413

tcggatctga gacgagacga gacggnnnnc cctcccctca accggaactt gttttacccc 60

atctcatccc agtgantcnt accacncanc cgcgcgcngc ntccgcngga tctngtcgga 120

ctcggatccg cccgaccacg accaccccgc gtcgccgccg cgcagagcag cagatcagag 180

aagatggccg gactcgacac cttcctcttc acctcggagt ccgtgaacga gggacaccct 240

gacaagtctg cgaccaggtc tcagatgtgt ttggacgttg nttgctgagg 290

<210> 414
<211> 310
<212> nucleic acid
<213> Zea mays

<400> 414

aacaggttca tcaagaccgc cgcatacggc cactttggcc gtgacgacgc cgacttcacc 60

tgggaggtgg tcaagcccct aaagaaggca tccgcttaag aatgtattgg gaagttcact 120

ggacatgagg ttcatcttcg tctggctctg ctgatacctg caaggatnnn nnnnnnnnnn 180

nnnnnnnnnn gatgtgtgtt tgatcagtga ctggctgctc tgctccatag aagatgaatg 240

aagagagaga tggtgaagaa ggctttggca aatggcaatt gccgcagcaa gccatgtcgg 300

cgccactgac 310

<210> 415
<211> 85
<212> nucleic acid
<213> Zea mays

<400> 415

ctcagggtgt gcatggccac ttcaccaagc gccccgagga gattggagct ggtgaccagg 60

gacacatgtt cgggtatgcg accga 85

<210> 416
<211> 166
<212> nucleic acid
<213> Zea mays

<400> 416

gagcagcagc gcaaggngan ccgccagctt gccccaggtt ggtagancga gcnagaagaa 60

ggcaatnncg gcggagagtt cctgttcacn tcggagtccg tgaacgangg gcacccagac 120

aagctgtgcg accaggtntc ggacgcggtg ctggacncct gcntgg 166

<210> 417
<211> 267
<212> nucleic acid
<213> Zea mays

<400> 417

aagacggcgg cctatggcca ctttggaagg gacgaccctg acttcacctg ggaggtggtg 60

aagccactgc aagtcggaga aaccttctgc ctaaggcggc ctttttttttc agtaagaagc 120

ttttggtggt ctgctgtgct taatcatgct tttatanggc ttctacatgt tgtggttctt 180

tcttgatctg caccgcgctt atcgtttgtg ttgtactgcc ctaataagtg gtgcttatga 240

ggactgtttc tggttttgct gcttatg 267

<210> 418
<211> 273
<212> nucleic acid
<213> Zea mays

<400> 418

acgaccccga cttcacctgg gaggtggtga agcccctcaa ggcggagaag ccgtcttctg 60

catgaggcgc ctcctctgtt ttggaagaag cttttggtct ggtctggtct ggtctggtgt 120

gcctgcgctc tatcatgctt ttttatggct cctacttgtg attcttgatc tgccccttgc 180

ttatcatttg tactgtactg tcactgtcct aataagtggt acgtgtgcgg ggtcgtattg 240

tgtctgctta ttcacctaga ggattatttc tgg 273

<210> 419
<211> 57
<212> nucleic acid
<213> Zea mays

<400> 419

atcgctgctg acctgaagga gcatgtcatc aagcctgtca tccctgagca gtacctt 57

<210> 420
<211> 235
<212> nucleic acid
<213> Zea mays

<400> 420

gtcggatctg agacgagacg nngnnnccct cccctcaacc ggaacttgtt ttaccccatc 60

tcatcccact gactcngncc acccaccann ncantgcctc cgccggatct cgtcggactc 120

ggatccgccc gaccacgacc accccgcgcc gccgccgcgc acagcagcag atcagagaag 180

atggccggac tcgacacctt cctcttcacc tcggagtccg tgaacgaggg acacc 235

<210> 421
<211> 297
<212> nucleic acid
<213> Zea mays

<400> 421

gccaagggat gatcaacaat ccaacntcga nctccaagaa ngggcggnaa caggttcatc 60

aagaccgccg catacggcca ctttggccgt gaacgacgcc gacttcacct gggaggtggt 120

caagccccta aagaaggcat ccgttaagaa tgtattggga agttcactgg acatgaggtt 180

catcttcgtc tggctctgct gatacctgca aggatnnnnn nnnnnnnnnn nnnnnnnnga 240

ttgtgtttga tcagtgactg gctgctctgc tccatagaag atgaatgaag agagaga 297

<210> 422
<211> 88
<212> nucleic acid
<213> Zea mays

<400> 422

cacncacgag accgtcacca acgacgagat cgccgccgac ctcaaggagc acgtcatcaa 60

gcccgtgatc cctgagaagt acctgcga 88

<210> 423
<211> 285
<212> nucleic acid
<213> Zea mays

<400> 423

ccgggtcgga tctgagacga gacgagttac catctcatcc caactccgga acgaacaagt 60

taccatctca tcccaactcc gcctcgaccg gatctcgtcg gactcggatc cgcccgacca 120

ccccgcgcng ccgcagatca aagaagatgg cntcgtcgac acattcctct tcacctcgga 180

gtctgtgaac gagggacacc ctgacaagtc tgtgaccagg tctcagatgc cgttcttgag 240

cttgcnttgc tgaggaccct gacagcaagg ttgttgtgag actgc 285

<210> 424
<211> 136
<212> nucleic acid
<213> Zea mays

<400> 424

accacgacca ccccgcgtcg ccgccgcgca nagcagcaga tcagagnaga tagccggatc 60

tcgacaccnt cctcttcacc tcggagtccg tgaacgaggg acaccctgac aagctctgcg 120

accaggtctc agatgc 136

<210> 425
<211> 217
<212> nucleic acid
<213> Zea mays

<400> 425

cgagacgagt nncctccccc cacctcgcct cacccaaccg gaacgaacaa gttacaatac 60

tcatcccaac cccgccttcg accggatctc gtcggactcg gatccgcccg accaccccgc 120

gccgccgcag atcaaagaag atggcagctg tcgacacatt cctcttcacc tcggagtctg 180

tgaacgaggg acaccctgac aagctctgtg accaggt 217

<210> 426
<211> 231
<212> nucleic acid
<213> Zea mays

<400> 426

cggatctgag acgagacgag ttaccatctc atcccaactc cggaacgaac aagttaccat 60

ctcatcccaa ctccgcctcg accggatctc gtcggactcg gatccgcccg accaccccgc 120

gccgccgcag atcaaagaag atggcagctg tcgacacatt cctcttcacc tcggagtctg 180

tgaacgaggg acacctgaca agctctgtga ccaggctcaa tgccgttctt g 231

<210> 427
<211> 85
<212> nucleic acid
<213> Zea mays

<400> 427

agtacctcga ngagaagacc atcttccacc tcaacccgtc cgggcgcttc gtcatcggnn 60

ggntcgangg tgacgtnggc ctcat 85

<210> 428
<211> 142
<212> nucleic acid
<213> Zea mays

<400> 428

caaccccgcc tcgaccggat ctcgtcggac tcggatccgc ccgaccaccc cgcgccgccg 60

cagatcaaag aagatggcag ctgtcgacac attcctcttc acctcggagt ctgtgaacga 120

gggacaccct gacaagctct gt 142

<210> 429
<211> 151
<212> nucleic acid
<213> Zea mays

<400> 429

cgttcgcctc ttctcctccc tcctgccggg tccttaataa agagcagcag cgcaagaggt 60

tggtagagcg agcgagaaga aggcaatggc ggcgagagct tcctgttcac ctcggagtcg 120

gtgaacgagg ggcacccaga caagctgtgc g 151

<210> 430
<211> 257
<212> nucleic acid
<213> Zea mays

<400> 430

agtgctcctc ctcctatgaa gaaggactct ccacgttctc nccgtcaaag cagtggaaaa 60

cagatttggg cgaggtagca acagcgtctt cagcagcgca gaagctctgg tatacgagga 120

gcccgcctcc aggcagctcc tgctccacca tgttgttgca gtcatagacc aaatctgttt 180

tccactgctt tgacggcgag aantgganna gtgctcctcc tcctatgaag aaggactaca 240

aactagctaa tcttctc 257

<210> 431
<211> 220
<212> nucleic acid
<213> Zea mays

<400> 431

aaagagatga cgaagctctc ggggattcat gagatcattc ccgagatgga gatctgtgac 60

tttgagtttg acccctgtgg gtactcgatg aatggcgtct tcgggcctgc agcctccacc 120

atccacgtga cacccgagga aggtttcagc tacgcaagct acgaagctat gaacttcgac 180

cccagctcac tggtctacag cgatgtgatc aggagggtcc 220

<210> 432
<211> 240
<212> nucleic acid
<213> Zea mays

<400> 432

gggagaaatt cgtgagatct tggnncgtnt cagggcgtgc gagcnctgga atcatgggtt 60

tcacacatag cttcgnctnt tngaatttna tgtactaatg gagtcnaagg gtggcaaaaa 120

gtcnnncngt agtcgttcta tggtgtatga agcgcccctt ggctacagca ttgaggncgt 180

tcgacctgcc ggagcgtgaa gaantccagc tgcggcttac tcgaactgcg ngaatnagcg 240

<210> 433
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 433

cttgtgtcgg tagttttccg ttggctctgg ctgccttcct ctgcttctga gattccaact 60

tgtcttgccc atctctcctt ttcctctctc atcctctctt tcttgcaaca cgtcatccag 120

tggcgatgtc ttcagcagat tcttgtgtct cttctcctgc ctcccctatt ggctttgagg 180

gctatgagaa gcgcctcgag atcacgttct ctgacgcgcc tgtctttgag gacccttgtg 240

gtcgtggcnt gcgcgccctc tcc 263

<210> 434
<211> 290
<212> nucleic acid
<213> Zea mays

<400> 434

taatgctgat ggcaacacaa cattagtctt gaagaagaat gaagctttct tcaagactaa 60

tgctgatggc aacacaacat anttccaagg aaatgacgaa gctctctggt atctctgaaa 120

ttatccctga gaaggagatc tgtgattttg acttcgaacc ctgcggctac tccatgaatg 180

caatccatgg ctctgcgttc tccacgatcc atgtgacgcc tgaggatggg ttcagctacg 240

ccagttatga ggttatgggc ttggatgcca ctgccctgtc ttacggtgac 290

<210> 435

<211> 258
<212> nucleic acid
<213> Zea mays

<400> 435

tggagcagga gctgcctgga ggcgggctcc tcgtgtacca tngcttctgt gntgctgaag 60

acgctgttgc tacctcgccc aaatctgttt tccacngcnt tganggcgag aacgtggaga 120

gtgctcctcn tcgnntgagg agganancaa gnggnnaang ttctntgttg ggagnatnan 180

acgggntgcc atggaggaga nggcgggatt ccttgatgag taatangggg ctctgggntc 240

gattagcttc tgattgtt 258

<210> 436
<211> 263
<212> nucleic acid
<213> Zea mays

<400> 436

cttgctctaa aacaatcgca gtcctgcaag ttgttgctgc tgctcctacc cctgcctctg 60

caattgggtt tgagggatat gagaagcgcc tcgagatcag cttctatgag gcacctgtct 120

tcgctgaccc caacggaagg ggattgtgtg cactcttgcg tccctagatt tactctattt 180

ctgaccatgc acggtgcacc gttgtctctg agctatcaaa cgaggacttt gactctatgt 240

cttatctgag tcaagcctgt ttg 263

<210> 437
<211> 266
<212> nucleic acid
<213> Zea mays

<400> 437

cccaganatg gagatctgtg acttcgactt cnagccctgt ggctactcca tgacatgctg 60

ttcatggcnc tgcnattgtc gaccattcat gngancccnc aggacgggca tcagctaatg 120

aaagcaacan ggncatgggc nttaanccgg ggctcctttc tcatatggtn anctggntaa 180

ganggtgctg aagnnnnttn gnccnactga ntncnctgtt gncgtaaccc atcttccggt 240

gatcgggcaa tgcgaagacc tggggg 266

<210> 438

<211> 281
<212> nucleic acid
<213> Zea mays

<400> 438

gggctgcccg gtgtaggcaa gtcaaccatc atgagcgagc tttattaata tgatgcaagc 60

tacctggttt ggtggtaatg cttatgtgat tggtgattct gcaaagcata agcagaagtg 120

gcacgtctac tatgccacca ctgagcaccc ctgaggagct tgttgttact cttgagatgt 180

gcatgactag gctggacaag aagagagctt atgtcttctt caagacctct attgatggtt 240

acacatcttg tgctaaggat atgaccaagc cttcagtgat t 281

<210> 439
<211> 334
<212> nucleic acid
<213> Zea mays

<400> 439

gcagaagtgg cacgtctact atgccaccac tgagcacccc taaggagctt gttgttactc 60

ttgagatgtg catgactagg ctggacaaga agagagctat gtcttcttca agacctctat 120

tgatggttac acatcttgtg ctaaggatat gaccaagcct tcagtggcat cgtcaaggag 180

tgcgtcgtga ccagtggtgc tagcagcaag gccatggcac tcagggtcca tgggtcgtgg 240

gtgtggcttg ttcagcgcct actattcgcg ggagtcggcg aggtgcctgc tgaacttggt 300

ggaagtggag tccattatga tctgacacga cctc 334

<210> 440
<211> 349
<212> nucleic acid
<213> Zea mays

<400> 440

catctatcct ctgaagattg tcatcaagac ctgtggcact accaagctcc tgctcacaat 60

tccaaggatc ctagagcttg tgaagagctg tctatgctct tgtgctgtga antatcccgc 120

gggacgttca tctttcctgg cgnacagcag ccccccaccg gagttctccg aggagttgtg 180

tattaaccgt actttggggg ctgaagtctg gtggcatgct tatgtgattg gagatgcagc 240

aagaccagga cagaagtggc acatctatac gccactgagt acccagagca accatgtcac 300

cttgagatgt gcatgatggt tggacagaag aagcttcatc ttcttcaag 349

<210> 441
<211> 260
<212> nucleic acid
<213> Zea mays

<400> 441

tttctcttat ggngacctgg ntaagagggt gctgaggcgc ttnggtccaa ctgagcnctc 60

tgttgccgtg accatcttcg gtgatcggga caatgcgaag acctgggggа cgaaactgna 120

tgctgaggcc tatgcttgca gcaacatggc tgagcaggag cttgccgatt ggtggcttgc 180

tcatctatca gagcttcact gttacggccg aancgacctn tgnttcccag ngcaaacntc 240

gnaaattccg ggnaaantaa 260

<210> 442
<211> 447
<212> nucleic acid
<213> Zea mays

<400> 442

cgtccctgca cacggcggtt ttcagactgc gatccattcc gagcttcgag gaatcgatgg 60

tcnagcttcg gtgactaaga gatcaaactc ttcaagttct acgaggctga agatcctgag 120

catctgtttg gtgaagattc ttatgccatg gaaattcatc gattgatacc gtccttttca 180

tagtcgatca tggttcaagg agattgcatt tgtggatgct ctaatggagt cgaaaggtgg 240

taagaaagtc nnnnnnnnnn nnnnnnnnnt tcatgtacga agctcccctt ggctacaaga 300

tcgaggacgt tcgcccagcc ggaggaatca agaagttcca gactgctgct tattccaact 360

gcgtccgcca gccatcctga tatcgcctca catgcaattc gcggtagagt aggattttaa 420

ttcagttttc ctcttgngtc ngnaggt 447

<210> 443
<211> 192
<212> nucleic acid
<213> Zea mays

<400> 443

gggctgagac ttcgannacg agccctnttg ctattncatg aatgctgnaa atnanccggg 60

gttggggana attcatntga gncnagagga cngattnagc tatgcaagct annaggtcat 120

gggctngaac ccggactctt tntgttatgg tgacctgcct aanagggagc tgangngctn 180

nggtccaaat ga 192

<210> 444
<211> 376
<212> nucleic acid
<213> Zea mays

<400> 444

caaagctnnt gctcgctatt ccgaggntcc ttgnactngn tgaanagctc cngttgcnac 60

tcgctgcagt taaanactnn cgtggaacgt ncatattccn tgaagcacan ccnttcnnac 120

acaagaactt ngntgacgag gttgccttcc tgaatngctt attcngtggn ctnaagtncn 180

gnngcaatgc ttatgtgant ggtgactctg ccaancccgg ncagaagtgn cacgtctact 240

acacnnctga gcaccctgan gagcctgtnn gnactctgga gatgtgcatg actgggctgg 300

acaagancaa agcttcatgn cntcttcaag accactgnnt gatggttact cgctnatncg 360

ccaaggatat caccaa 376

<210> 445
<211> 502
<212> nucleic acid
<213> Zea mays

<400> 445

gtgctagtgg cnangnnntn nngtatnaan gacacactcc ggtncggaat tcccgggtcg 60

acccacgcgt ccgcggacgc gtggggttgc caaagaattn cctnccctac cgtcgtcgnc 120

gctcgtctgg nngggaagtt ccnggacccn ngatttngcc caattctnag gnaaaaannc 180

ggtttacntn ncttaacccn gggnnttctn cctntngtng ttgttaaagg ganaaaattn 240

tnagatctgt tccggatcaa gcgtgcganc tcgggaatca agggttttna cacatatctt 300

ttccatttga aaattgatnt actaaatggn gtctanaagg tggcaaaaag tctnacaata 360

gtcgttctat natgtatgaa gctccccttn gctncagcat tnaggacgtt cgacctgccc 420

gangcctnaa gaaatttcca gtctnctgct tactncaact tcncnaaaaa accattctga 480

tatccttttg cttnctcaat nt 502

<210> 446
<211> 160
<212> nucleic acid
<213> Zea mays

<400> 446

agtngctgca cttaaccgtt nctttggcgg cctgaaatct ggtggnangg gcgggtgtga 60

tnggagatcc agcaagacct ggncagaagt ggcacttntt nnaacgncan tnantnccna 120

ttancaacca atggttaacc tanaaatgtg catnactgna 160

<210> 447
<211> 487
<212> nucleic acid
<213> Zea mays

<400> 447

attacgtccn ctagcccttc gccnncgctc ttttccntna gaggcgccgg caccgangat 60

ccgggncggg ntcnatntnn agaannggna gtacttgtct cagcccgggg nctgctgcgt 120

cnggtggtgg tnaaggggag aanntcgtna gatctgntcc ggatcaagcg nncganctcg 180

ggaatcaggg gtttcacaca tanctgngnc gatcncgaat tctgatgtac taatggagtc 240

taagggnggc aaaaagtcta gccttacnta cnctatnatg catagaagct ccccttggct 300

acagcattna cgaccgttcg anctgtccng aggcgtgaaa aagntccnnt acngctgctt 360

actccaactt gcgcgaaaca anccntcctg aanantcccc ttttggcttc ctcattctaa 420

gcactttaag gaattttaat ntctggacac ttntggantn ttnaccaaan ctcntctggg 480

cctaggg 487

<210> 448
<211> 438
<212> nucleic acid
<213> Zea mays

<400> 448

gaggannteg ttgagatcta agatagagaa tcgctggggc angngnctgt ggtctgctgc 60

gtagggtggt gntgaanggg agaagtttaa gatctgntcc acagatcacg cgtgcgcgct 120

cgcgaancgg gggttccaca catagcttng tcggtttgaa tttgangtac taatggagtc 180